TOSHIBA

FILE NO. 020-200420
REVISION 3

SERVICE MANUAL

Projection Television

46HM94
52HM94
62HM94

DOCUMENT CREATED IN JAPAN, Jan., 2005

TABLE OF CONTENTS

CHAPTER 1 **GENERAL ADJUSTMENTS**

SAFETY INSTRUCTIONS 3

SERVICE MODE 4

CHAPTER 2 **SPECIFIC INFORMATIONS**

SETTING & ADJUSTING DATA 7

LAMP UNIT REPLACEMENT 8

LIGHT ENGINE REPLACEMANT 11

PARTS REPLACEMENT IN LIGHT ENGINE 13

EXPLODED VIEW 15

MECHANICAL DISASSEMBLY 16

CHASSIS REPLACEMENT PARTS LIST 17

PC BOARDS TOP AND BOTTOM VIEW 26

TERMINAL VIEW OF TRANSISTORS 44

CIRCUIT BLOCK DIAGRAM 48

SPECIFICATIONS ..... END

APPENDIX:

CIRCUIT DIAGRAM

CHAPTER 1 GENERAL ADJUSTMENTS

SAFETY INSTRUCTIONS

SAFETY PRECAUTION

WARNING: Service should not be attempted by anyone unfamiliar with the necessary precautions on this receiver. The following are the necessary precautions to be observed before servicing this chassis.

1. An isolation transformer should be connected in the power line between the receiver and the AC line before any service is performed on the receiver.
2. When replacing a chassis in the cabinet, always be certain that all the prospective devices are put back in place, such as; non-metallic control knobs, insulating covers, shields, isolation resistor-capacitor network etc.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the international hazard symbols on the schematic diagram and the parts list.
Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety character istics as specified in the parts list may create shock, fire, or other hazards.

SERVICE MODE

1. ENTERING SERVICE MODE

1) Press MUTE button twice on Remote Control.

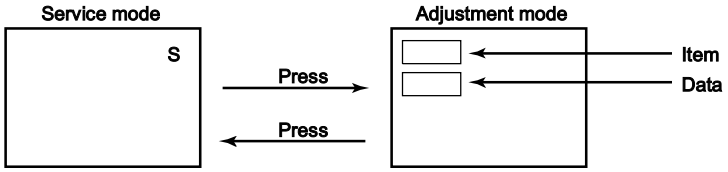
2) Press MUTE button again and keep pressing.

3) While pressing the MUTE button, press MENU button on TV set.

(Service mode display)

2. DISPLAYING THE ADJUSTMENT MENU

1) Press MENU button on TV.



3. SELECTING THE ADJUSTING ITEMS

1) Every pressing of CHANNEL ▲ button in the service mode changes the adjustment items in the order of table-2. (▼ button for reverse order)

Refer to table-1 for preset data of adjustment mode.
(See SETTING & ADJUSTING DATA on page 8)

4. ADJUSTING THE DATA

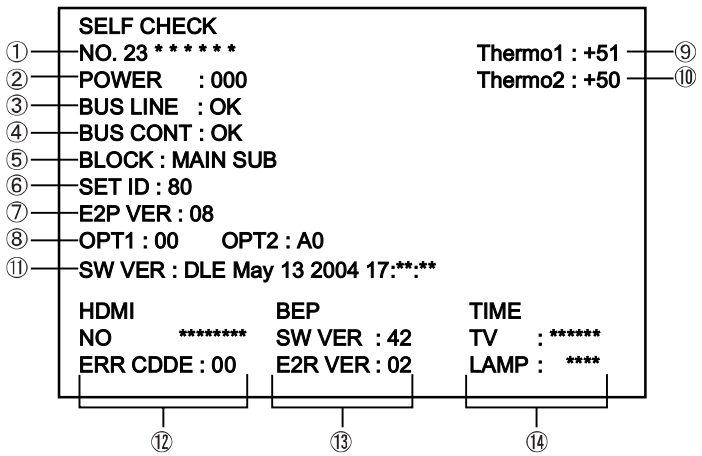
1) Pressing of VOLUME ▲ or ▼ button will change the value of data in the range from 00H to FFH. The variable range depends on the adjusting item.

5. EXIT FROM SERVICE MODE

1) Pressing POWER button to turn off the TV once.

6. SELF DIAGNOSTIC FUNCTION

1) Press "9" button on Remote Control during display of adjustment menu in the service mode.
   The diagnosis will begin to check if interface among IC's is executed properly.
2) During diagnosis, the following displays are shown.

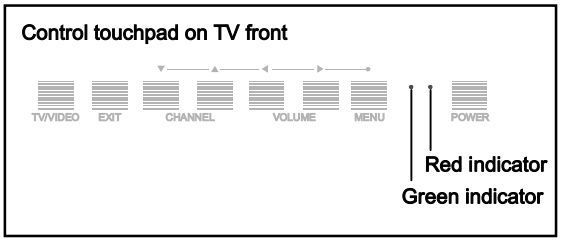


① Part number of microprocessor (IC609)
② Operation number of protection circuit (The number of times of the power supply OFF by fan stop). . . . "000" is normal.
③ BUS line check — "OK" ..... Normal
   "SCL-GND" or "NG" ..... SCL-GND short circuit
   "SDA-GND" or "NG" ..... SDA-GND short circuit
   "SCL-SDA" or "NG" ..... SCL-SDA short circuit
④ BUS line ACK (acknowledge) check
   "OK" ..... Normal
⑤ Sync. signal check — Green display ..... Normal
   Red display ..... NG
   MAIN ..... Main sync
   SUB ..... Sub sync (when turn on the PIP)
⑥ ID code for TV Set
⑦ Version of "EEP"
⑧ Data for "OPT"
⑨ Temperature of DMD
⑩ Temperature of the color wheel neighborhood
⑪ Software version history
⑫ HDMI Software
   NO ***** .....Serial No.
   ERR CODE .....Error Code
⑬ BEP Software Version
   SW VER : **.....Version
   E2P VER : ** EEP ROM Version
⑭ Use time
   TV .....TV set on time (hour)
   LAMP.....LAMP set on time (hour)
   (It may shift from TV set on time.)

7. LED Indications

The green and red LED lights on the TV control touchpad (on the lower right corner of the TV screen) indicate the TV's current status, as follows:

- Green ON = Control touchpad being pressed.
- Red ON = Power ON.
- Green and/or Red blinking (see table below for condition and solution).



	LED Indication	Condition	Solution
1	Red and Green turn off.	Power supply OFF. (AC)	
2	Red and Green turn off.	Power supply OFF. (Standby) (North America)	
3	Red light solid and Green off.	Power supply ON.	
4	Red and Green lights solid.	Touched the touchpad	
5	Green blinks at 1-second intervals; Red off.	Lamp LPS mode	
6	Green blinks at 0.3-second intervals; Red lights solid.	The lamp is not working properly.	The TV automatically will try to reset itself three times.
7	Green lights solid and Red blinks at 0.5-second intervals.	The lamp unit door is not seated properly. (U)	Turn the POWER OFF and unplug the power cord. Review "How to replace the lamp unit" on pages 8-10 to ensure that the lamp unit door is installed securely.
8	Green and Red blink at 1-second intervals.	The lamp is not working properly after the third automatic reset (see item #7). (U)	Turn the POWER OFF and then ON again. If the problem persists, replace the lamp unit (see pages 8-10).
9	Red blinks at 0.5-second intervals; Green off.	FAN (Light engine unit) has stopped.	• Is the output voltage of the supply voltage regulator for the FAN in the power circuit normal? • Has dust accumulated in the FAN? → If the output voltage is not abnormal, replace the faulty FAN with a new one.
10	Red blinks at 1-second intervals; Green off.	BUS line is damaged	• Check the faulty device through the self diagnostics function under SERVICE mode. • Does BUS line (SCL, SDA) work normally? → If the BUS line is under abnormal conditions, replace the faulty device with a new one.
11	Red blinks three times; Green off.	The collar wheel has stopped.	• Is the output voltage of the power supply circuit normal? → If the output voltage is normal, replace the engine with a new one.
12	Red and Green blink three times.	Temperature rises abnormally.	• Is the ventilating hole in the set (exhaust slot on the rear) blocked or covered? • Is FAN rotating normally? • Has dust accumulated in the ventilating hole? → If no abnormally conditions are found, replace the engine with a new one.

(U) is restoration by the user.

CHAPTER 2 SPECIFIC INFORMATIONS

SETTING & ADJUSTING DATA

【 SERVICE MODE 】

ADJUSTING ITEMS AND DATA IN THE SERVICE MODE:

Item	Name of adjustment	Preset	Data
RCUT	R CUT OFF	80H	←
GCUT	G CUTOFF	80H	←
BCUT	B CUT OFF	80H	←
GDRV	G DRIVE	40H	←
BDRV	B DRIVE	40H	←
BRTC	BRIGHT CENTER	80H	←
SCNT	SUB CONTRAST FOR TV	10H	←
COLC	COLOR CENTER	4BH	←
UVTT	BASE BAND TINT	43H	←
CNTX	SUB CONTRAST MAX	7FH	←
HPOS	H-POSITION (PAL/DFS)	00H	←
VPOS	V-POSITION DC SHIFT (PAL/DFS)	00H	←
CWDH	COLOR WHEEL DELAY (HIGH)	00H	←
CWDL	COLOR WHEEL DELAY (LOW)	FAH	←
DMDB	DMD BIAS	03H	←
OPT0	TV SET OPTION 1	04H	←
OPT1	TV SET OPTION 2	A0H	←

Item	Name of adjustment	Preset	Data
TVOP	TV OPTION	40H	←
PLLW0	PLL WAIT TIME	14H	←
PLLW1	PLL WAIT TIME	03H	←
PLLW2	PLL WAIT TIME	0FH	←
PLLW3	PLL WAIT TIME	05H	←
PLLW4	PLL WAIT TIME	14H	←
PLLW5	PLL WAIT TIME	04H	←
V01	VOLUME (DATA)	23H	←
V25	VOLUME (DATA)	4AH	←
V50	VOLUME (DATA)	63H	←
V75	VOLUME (DATA)	6FH	←
V100	VOLUME (DATA)	73H	←
MODH	MODUS DATA HIGH	20H	←
MODL	MODUS DATA LOW	91H	←
PRES	FMAM PRESCALE	24H	←
SCTH	VOLUME SCART OPTION HIGH	73H	←
SCTL	VOLUME SCART OPTION LOW	01H	←

Table-1

Note:

The image system data of RCUT-CNTX is different by each image format.

The NTSC value is indicated in the table.

LAMP UNIT REPLACEMENT

Cautions when replacing LAMP UNIT (SK02)

The light source for this TV is a mercury lamp with internal atmospheric pressure that increases during use. The lamp has a limited service life that varies depending on user settings. If you use the lamp beyond its service life:

- you may notice a reduction in the colors and/or brightness of the picture; and
- the strength of the quartz glass in the lamp will be reduced and the lamp may rupture (often making a loud noise when this happens). If the lamp reputres, the TV will not operate until the lamp unit is replaced.

Note: The lamp unit is designed so broken lamp glass remains securely inside the lamp unit.

CAUTION: Always handle the lamp unit with care.
The lamp unit in this TV was designed for safe replacement by consumers; however, if the lamp unit is subjected to intentional abuse (such as excessive mechanical abuse or handling by children or pets), the unit may break, exposing edges or pinch points.

When to replace the lamp unit

You should replace the lamp unit:

- if the picture darkens and/or colors fade;
- if the lamp does not light; or
- If you hear a loud noise and the picture goes black, which may indicate a lamp rupture (LED indication #8). See LED indications on page 6.

1. Turn off the TV and unplug the power cord.

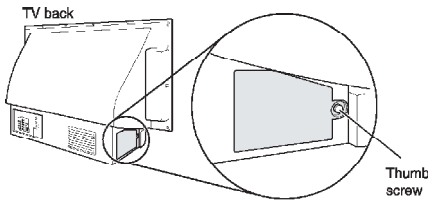
WARNING: Eye damage may result from directly viewing the light produced by this lamp. Always turn off the TV and unplug the power cord before opening the lamp unit door.

2. STOP! Allow the lamp to cool for at least one (1) hour before replacing it.

CAUTION: HOT SURFACE

The temperature of the lamp immediately after use exceeds 392 F (200 C). Touching the lamp at this temperature will result in injury. **ALLOW THE LAMP TO COOL FOR AT LEAST ONE (1) HOUR BEFORE REPLACING IT.**

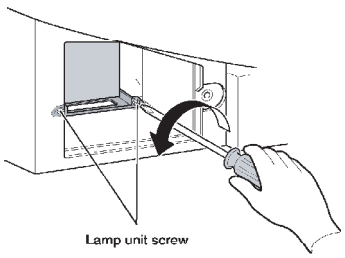
3. On the back of the TV, loosen the thumb screw (by hand) on the lamp unit door, and then remove the lamp unit door.



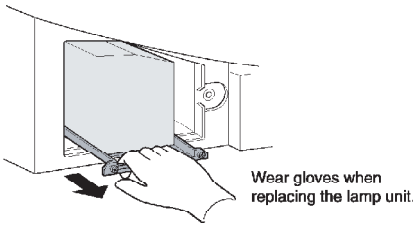
Lamp unit door detail

WARNING: The lamp unit door is provided with an interlock to reduce the risk of electric shock and excessive ultraviolet radiation. **Never defeat its purpose or attempt to service without removing the lamp unit door completely.** Failure to follow this WARNING may result in death or serious injury.

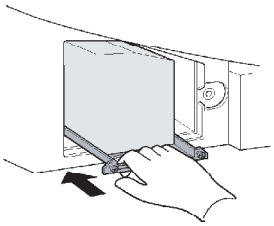
4. Using a manual screwdriver, loosen two screws on the lamp unit.


Lamp unit screw

5. Grasp the lamp unit handle and gently pull the lamp unit straight out of the TV. Set the old lamp unit aside.


Wear gloves when replacing the lamp unit.

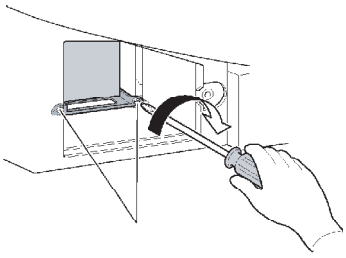
6. Carefully insert the new lamp unit straight into the TV until it is fully seated.



Note :

- Never subject the lamp unit to excessive shock.
- Never touch the lamp unit glass or otherwise get it dirty.
- Doing so may affect the image quality and reduce the service life of the lamp. See "Cleaning the lamp unit glass" below.

7. Using a manual screwdriver, tighten two lamp unit screws.
Note:Hand-tighten only. Do not use an electric screwdriver.

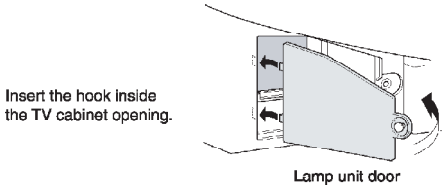

Lamp unit screw
(hand-tighten only)

Cleaning the lamp unit glass

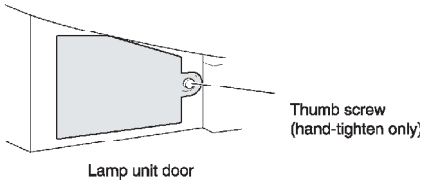
If you accidentally touch the lamp unit glass or otherwise get it dirty, wipe it with a lint-free lens cleaning cloth (such as a cloth for cleaning camera lenses or eyeglasses).

CAUTION: NEVER clean a hot lamp with any type of flammable liquid or aerosol cleaning agent. Many ordinary cleaning agents (such as glass cleaners) contain chemicals that may be flammable at certain temperatures. If the lamp unit is not allowed to cool for at least one (1) hour, such chemicals may ignite.

8. Reattach the lamp unit door, making sure to insert the hook on the left side of the lamp unit door inside the opening in the TV cabinet.



9. Replace the thumb screw and hand-tighten.



NOTE: Make sure the lamp unit and screw are installed securely; otherwise, the TV may not turn on and the lamp life may be shortened.

10. Plug in the power cord and turn on the TV. After the initial warmup period (which may take up to 45 seconds for full picture brightness), the TV should operate normally. If any of the following conditions exist, turn off the TV, unplug the power cord, and repeat steps 1-9 to ensure that the lamp unit and lamp unit door are installed correctly:
    - No picture
    - Dark picture
    - TV will not turn on

LIGHT ENGINE REPLACEMENT

Cautions when replacing LIGHT ENGINE

LIGHT ENGINE UNIT:

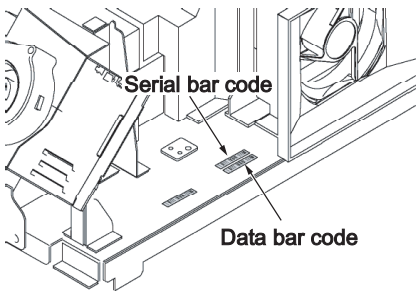
A271: PJ-TB25-46/52/62 (Including with SK02 to SK08)

SK01: PJ-TB-25-46S/52S/62S
(Including with SK03 to SK08 except SK02)

- LIGHT ENGINE is a heart of the TV and emits high heat. Make sure to replace it after turning off the TV and wait for sufficient cool down. (More than one hour is recommended.)
- Do not impact during replacement; otherwise, some parts may be damaged.
- Do not touch optical lens. Adhesion of dirt may deteriorate its performance.
- Do not loosen any screw other than those to be removed for adjustment or replacement.
- LIGHT ENGINE emits ultraviolet rays when the TV is ON. Make sure to be careful.

1. Replacement of Light Engine Unit

1-1. When Light Engine Unit is replaced with a new one, adjustment is required. Adjusted values are described in bar code, and the values of bar code must be converted to the adjusted values for the setup. There are 2 types of bar code.



Serial bar code
Ex. 52A000A111111
Inch size
Serial numbers

Data bar code (CW: color wheel)
Ex. A111111B1111
CWdelay number: 4digits
DMD bias value
Substrate serial numbers

1-2. Adjustment is made from service mode. The adjusting items consist of CWDL, CWDH and DMDB.

CWDL CWDH

When CW delay number of the data bar code is 0450:

0450 indicates ⇒ 450 ⇒ 45.0
Double 45.0 to form hexadecimal number (HEX).

45.0 x 2=90 ⇒ 5A (hexadecimal)
The adjusted value becomes "5A" for CWDL and "00" for CWDH.
If hexadecimal number forms 3 or 4 digits, the latter 2 digits indicate CWDL while the first 2 digits indicate CWDH.
(For 3 digits, CWDH=0*)

Note:
For converting decimal number to hexadecimal number, see the conversion table on the next page.

DMDB

Read DMD bias value described in alphabet from the data bar code. In service mode, DMDB value is converted and fixed by the following table.

DMD value in bar code	Adjusted value (Hex)
B	00
C	01
D	02
E	03
F	04

Refer to Service Mode for adjusting the service mode.

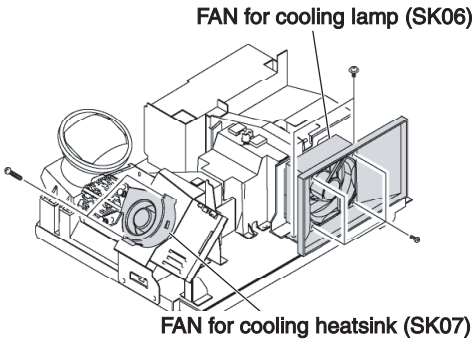
Conversion Table for Decimal and Hexadecimal Numbers

CW delay number	CWDH	CWDL	CW delay number	CWDH	CWDL	CW delay number	CWDH	CWDL	CW delay number	CWDH	CWDL	CW delay number	CWDH	CWDL
0000	00	00	0375	00	4B	0750	00	96	1125	00	E1	1500	01	2C
0005	00	01	0380	00	4C	0755	00	97	1130	00	E2	1505	01	2D
0010	00	02	0385	00	4D	0760	00	98	1135	00	E3	1510	01	2E
0015	00	03	0390	00	4E	0765	00	99	1140	00	E4	1515	01	2F
0020	00	04	0395	00	4F	0770	00	9A	1145	00	E5	1520	01	30
0025	00	05	0400	00	50	0775	00	9B	1150	00	E6	1525	01	31
0030	00	06	0405	00	51	0780	00	9C	1155	00	E7	1530	01	32
0035	00	07	0410	00	52	0785	00	9D	1160	00	E8	1535	01	33
0040	00	08	0415	00	53	0790	00	9E	1165	00	E9	1540	01	34
0045	00	09	0420	00	54	0795	00	9F	1170	00	EA	1545	01	35
0050	00	0A	0425	00	55	0800	00	A0	1175	00	EB	1550	01	36
0055	00	0B	0430	00	56	0805	00	A1	1180	00	EC	1555	01	37
0060	00	0C	0435	00	57	0810	00	A2	1185	00	ED	1560	01	38
0065	00	0D	0440	00	58	0815	00	A3	1190	00	EE	1565	01	39
0070	00	0E	0445	00	59	0820	00	A4	1195	00	EF	1570	01	3A
0075	00	0F	0450	00	5A	0825	00	A5	1200	00	F0	1575	01	3B
0080	00	10	0455	00	5B	0830	00	A6	1205	00	F1	1580	01	3C
0085	00	11	0460	00	5C	0835	00	A7	1210	00	F2	1585	01	3D
0090	00	12	0465	00	5D	0840	00	A8	1215	00	F3	1590	01	3E
0095	00	13	0470	00	5E	0845	00	A9	1220	00	F4	1595	01	3F
0100	00	14	0475	00	5F	0850	00	AA	1225	00	F5	1600	01	40
0105	00	15	0480	00	60	0855	00	AB	1230	00	F6	1605	01	41
0110	00	16	0485	00	61	0860	00	AC	1235	00	F7	1610	01	42
0115	00	17	0490	00	62	0865	00	AD	1240	00	F8	1615	01	43
0120	00	18	0495	00	63	0870	00	AE	1245	00	F9	1620	01	44
0125	00	19	0500	00	64	0875	00	AF	1250	00	FA	1625	01	45
0130	00	1A	0505	00	65	0880	00	B0	1255	00	FB	1630	01	46
0135	00	1B	0510	00	66	0885	00	B1	1260	00	FC	1635	01	47
0140	00	1C	0515	00	67	0890	00	B2	1265	00	FD	1640	01	48
0145	00	1D	0520	00	68	0895	00	B3	1270	00	FE	1645	01	49
0150	00	1E	0525	00	69	0900	00	B4	1275	00	FF	1650	01	4A
0155	00	1F	0530	00	6A	0905	00	B5	1280	01	00	1655	01	4B
0160	00	20	0535	00	6B	0910	00	B6	1285	01	01	1660	01	4C
0165	00	21	0540	00	6C	0915	00	B7	1290	01	02	1665	01	4D
0170	00	22	0545	00	6D	0920	00	B8	1295	01	03	1670	01	4E
0175	00	23	0550	00	6E	0925	00	B9	1300	01	04	1675	01	4F
0180	00	24	0555	00	6F	0930	00	BA	1305	01	05	1680	01	50
0185	00	25	0560	00	70	0935	00	BB	1310	01	06	1685	01	51
0190	00	26	0565	00	71	0940	00	BC	1315	01	07	1690	01	52
0195	00	27	0570	00	72	0945	00	BD	1320	01	08	1695	01	53
0200	00	28	0575	00	73	0950	00	BE	1325	01	09	1700	01	54
0205	00	29	0580	00	74	0955	00	BF	1330	01	0A	1705	01	55
0210	00	2A	0585	00	75	0960	00	C0	1335	01	0B	1710	01	56
0215	00	2B	0590	00	76	0965	00	C1	1340	01	0C	1715	01	57
0220	00	2C	0595	00	77	0970	00	C2	1345	01	0D	1720	01	58
0225	00	2D	0600	00	78	0975	00	C3	1350	01	0E	1725	01	59
0230	00	2E	0605	00	79	0980	00	C4	1355	01	0F	1730	01	5A
0235	00	2F	0610	00	7A	0985	00	C5	1360	01	10	1735	01	5B
0240	00	30	0615	00	7B	0990	00	C6	1365	01	11	1740	01	5C
0245	00	31	0620	00	7C	0995	00	C7	1370	01	12	1745	01	5D
0250	00	32	0625	00	7D	1000	00	C8	1375	01	13	1750	01	5E
0255	00	33	0630	00	7E	1005	00	C9	1380	01	14	1755	01	5F
0260	00	34	0635	00	7F	1010	00	CA	1385	01	15	1760	01	60
0265	00	35	0640	00	80	1015	00	CB	1390	01	16	1765	01	61
0270	00	36	0645	00	81	1020	00	CC	1395	01	17	1770	01	62
0275	00	37	0650	00	82	1025	00	CD	1400	01	18	1775	01	63
0280	00	38	0655	00	83	1030	00	CE	1405	01	19	1780	01	64
0285	00	39	0660	00	84	1035	00	CF	1410	01	1A	1785	01	65
0290	00	3A	0665	00	85	1040	00	D0	1415	01	1B	1790	01	66
0295	00	3B	0670	00	86	1045	00	D1	1420	01	1C	1795	01	67
0300	00	3C	0675	00	87	1050	00	D2	1425	01	1D			
0305	00	3D	0680	00	88	1055	00	D3	1430	01	1E			
0310	00	3E	0685	00	89	1060	00	D4	1435	01	1F			
0315	00	3F	0690	00	8A	1065	00	D5	1440	01	20			
0320	00	40	0695	00	8B	1070	00	D6	1445	01	21			
0325	00	41	0700	00	8C	1075	00	D7	1450	01	22			
0330	00	42	0705	00	8D	1080	00	D8	1455	01	23			
0335	00	43	0710	00	8E	1085	00	D9	1460	01	24			
0340	00	44	0715	00	8F	1090	00	DA	1465	01	25			
0345	00	45	0720	00	90	1095	00	DB	1470	01	26			
0350	00	46	0725	00	91	1100	00	DC	1475	01	27			
0355	00	47	0730	00	92	1105	00	DD	1480	01	28			
0360	00	48	0735	00	93	1110	00	DE	1485	01	29			
0365	00	49	0740	00	94	1115	00	DF	1490	01	2A			
0370	00	4A	0745	00	95	1120	00	E0	1495	01	2B			

PARTS REPLACEMENT IN LIGHT ENGINE

1 FAN Replacement (SK06 and SK07)

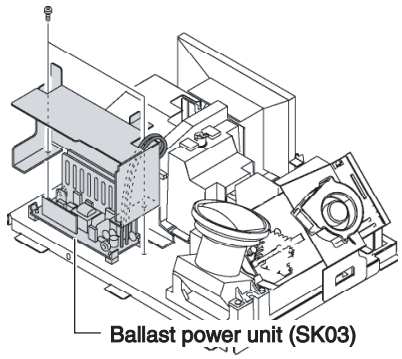
1-1. For replacing FAN for cooling heatsink (SK07), remove 2 screws.
For replacing FAN for cooling lamp (SK06), detach FAN hood located on LIGHT ENGINE by removing 2 screws and then remove 4 screws.



2. Replacement of Ballast Power Unit (SK03)

2-1. Remove lamp unit by loosening 2 screws.
(Refer to pages 8 to 10)

2-2. Remove 2 screws holding chassis of ballast power unit (SK03) to detach the chassis.
Note:
Treat with enough care so as not to damage the cable for lamp power.

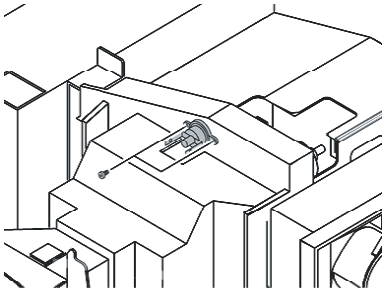


2-3. Detach the ballast power unit by removing 4 substrate stoppers that hold the ballast power unit.

CAUTION
Precautions When Exchanging Ballast Power Units
When you install a new ballast power unit, install it while pushing the four corners of the board directly. Installation while pressing the heatsink may cause the pattern crack.

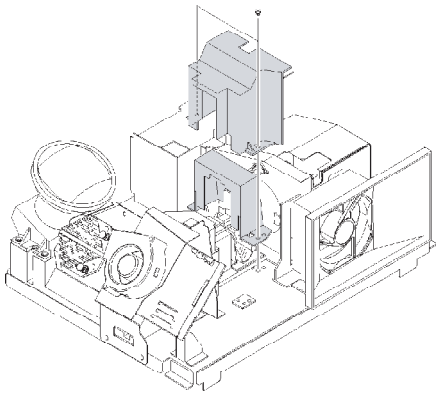
3. Replacement of Temperature Breaker (SK08)

3-1. Remove 2 screws for replacing the temperature breaker (SK08) for lamp.

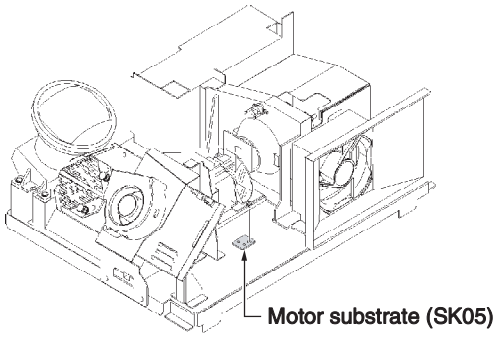


4 Replacement of Sensor Unit (Photo Detector Substrate) (SK04) & Motor Unit (Motor Substrate) (SK05)

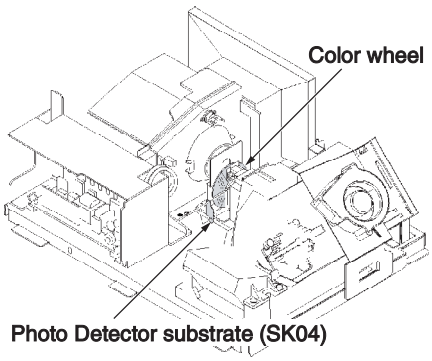
4-1. Remove 2 screws fixing a color wheel cover and UV filter box.



4-2. Remove one screw for Motor Substrate (SK05).



4-3. Remove 2 screws holding Photo Detector substrate (SK04).



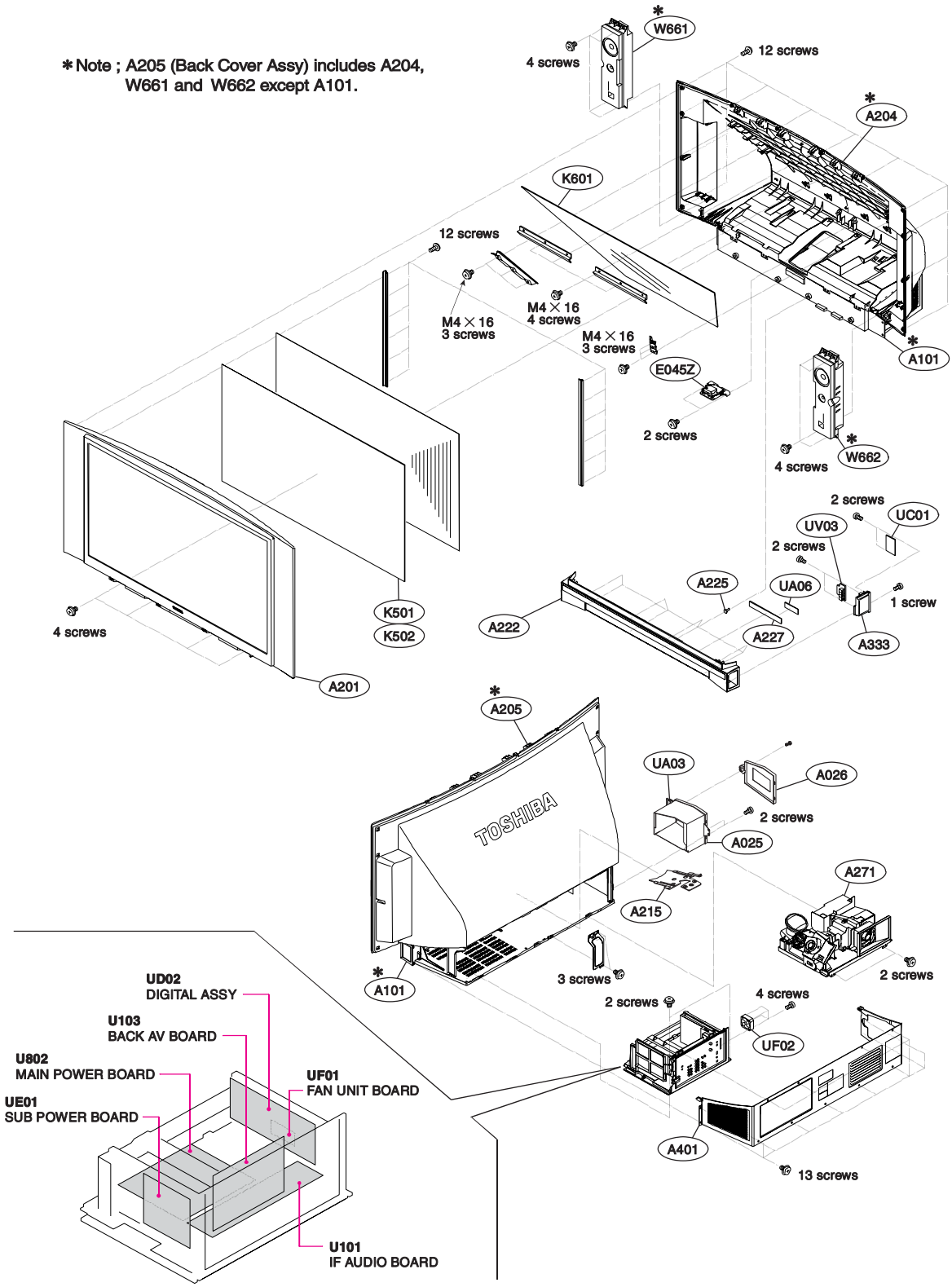
Caution
- When removing screws, do not damage the color wheel with drivers, etc. Even a small impact may damage the color wheel.
- Make sure not to touch the color wheel.
- Don't remove other screws by any means.

5. LIGHT ENGINE UNIT

Location No.		Parts No.	Description
A271	#1	23405378	OPTICAL ENGINE, PJ-TB25-46 (Incl. SK02-SK08)
	#2	23405372	OPTICAL ENGINE, PJ-TB25-52 (Incl. SK02-SK08)
	#3	23405379	OPTICAL ENGINE, PJ-TB25-62 (Incl. SK02-SK08)
SK01	#1	23405384	OPTICAL ENGINE, PJ-TB25-46S (Incl.SK03-SK08)
	#2	23405385	OPTICAL ENGINE, PJ-TB25-52S (Incl.SK03-SK08)
	#3	23405386	OPTICAL ENGINE, PJ-TB25-62S (Incl.SK03-SK08)
SK02		23587201	SERVICE KIT, SHP66 LAMP UNIT SHP66 LAMP UNIT
SK03		23122468	POWER UNIT, RPB-4434ZA RPB-4434ZA
SK04		23762354	PC BOARD ASSY, SENSOR UNIT PD1823
SK05		23762355	PC BOARD ASSY, MOTOR UNIT PD1824
SK06		23125920	FAN, D09A-12PS6 01B(K)
SK07		23125919	FAN, D07F-12SS18 01B(EX)
SK08		23144199	BREAKER, US-603UXTLQE-H

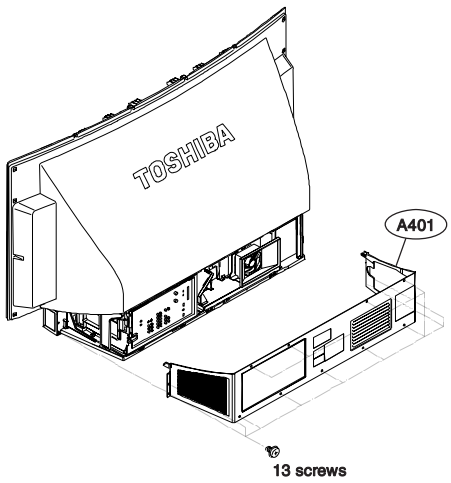
#1:[46HM94] #2:[52HM94] #3:[62HM94]

EXPLODED VIEW

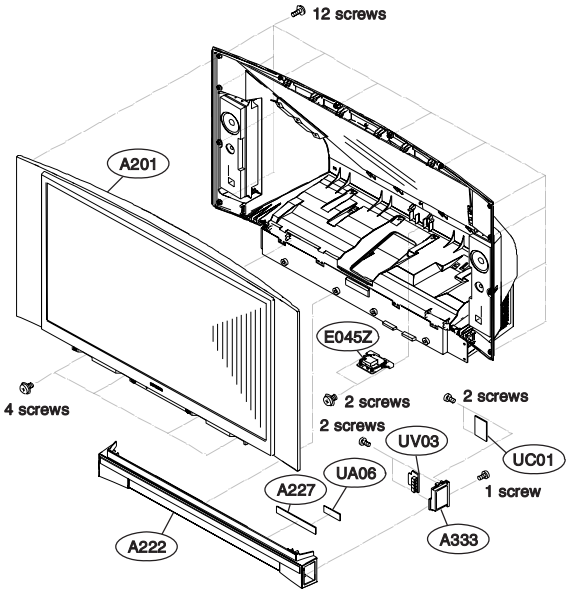


MECHANICAL DISASSEMBLY

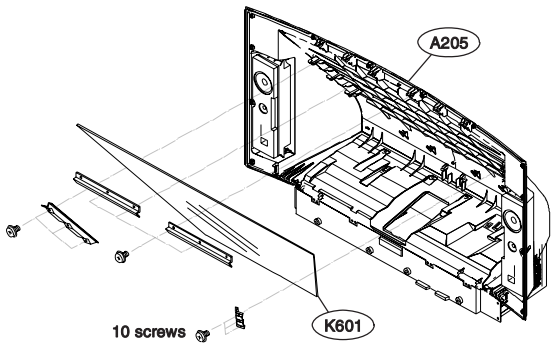
1. Rear Cover Removal



2. Touchpad & Bezel Ass'y Removal

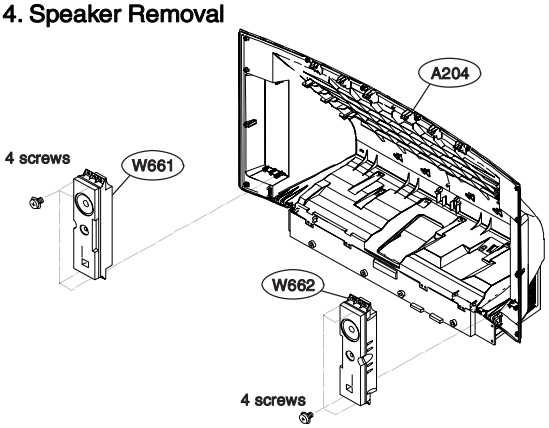


3. Mirror Removal

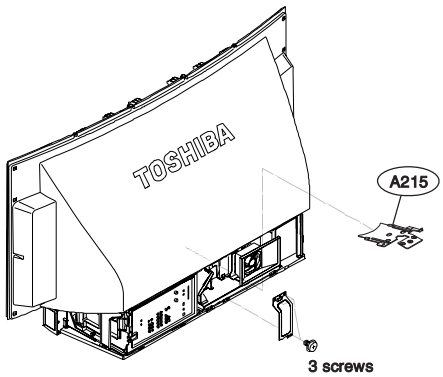


Note ; A205 includes A204, W661 and W662.

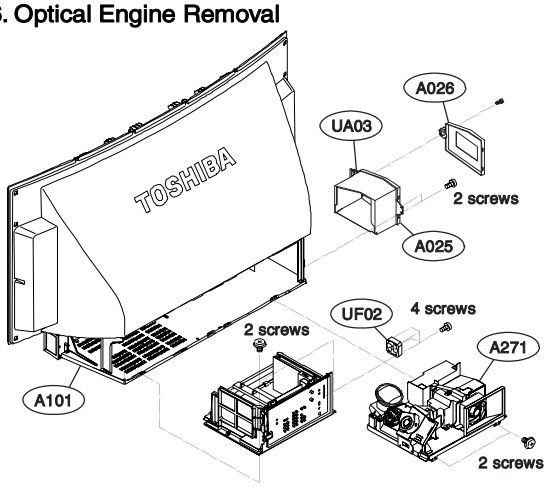
4. Speaker Removal



5. Bracket Removal



6. Optical Engine Removal



CHASSIS AND CABINET REPLACEMENT PARTS LIST

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE. Do not degrade the safety of the receiver through improper servicing.

NOTICE:
- *The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.*
- *The PC board assembly with * mark is no longer available after the end of the production.*

Model : 46HM94/52HM94/62HM94

Capacitors	CD	:	Ceramic Disk	PF	:	Plastic Film	EL	: Electrolytic
Resistors	CF	:	Carbon Film	CC	:	Carbon Composition	MF	: Metal Film
	OMF	:	Oxide Metal Film	VR	:	Variable Resistor	FR	: Fusible Resistor

(All CD and PF capacitors are ±5%, 50V and all resistors, ±5%, 1/6W unless otherwise noted.)

Location No.	Parts No.	Description
#1:[46HM94]		
#2:[52HM94]		
#3:[62HM94]		
CAPACITORS		
C101	24797339	ELECTROLYTIO CE04G, 50V 3.3UF M
C102	24665221	ELECTROLYTIC CE04Q, 10V 220UF M 3A
C105	24100102	CERAMIC CHIP, 50V F 1000PF Z
C106	24669479	ELECTROLYTIC, 50V 4.7UF M 3A
C107	24666221	ELECTROLYTIC 04Q, 16V 220UF M 3A
C108	24665221	ELECTROLYTIC CE04Q, 10V 220UF M 3A
C109	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C110	24794101	ELECTROLYTIC, 16V 100UF M
C502	24092730	CERAMIC CHIP, 16V B 0.1UF K
C508	24092730	CERAMIC CHIP, 16V B 0.1UF K
C515	24092730	CERAMIC CHIP, 16V B 0.1UF K
C516	24109103	CERAMIC CHIP, 50V B 0.01UF K
C517	24092731	CERAMIC CHIP, 16V B 1UF K
C524	24092730	CERAMIC CHIP, 16V B 0.1UF K
C538	24630727	ELECTROLYTIC, 6.3V 330UF M 7L 3A
C582	24105101	CERAMIC CHIP, 50V CH 100PF J
C601	24109122	CERAMIC CHIP, 50V B 1200PF K
C602	24109122	CERAMIC CHIP, 50V B 1200PF K
C603	24073084	ELECTROLYTIC, 50V 4.7UF M 3A
C604	24073084	ELECTROLYTIC, 50V 4.7UF M 3A
C605	24073086	ELECTROLYTIC, 50V 10UF M 3A
C606	24073086	ELECTROLYTIC, 50V 10UF M 3A
C607	24073053	ELECTROLYTIC, 25V 100UF M 3A
C608	24073086	ELECTROLYTIC, 50V 10UF M 3A
C612	24073054	ELECTROLYTIC CE04P 25V 220UF M 3A
C621	24109822	CERAMIC CHIP, 50V B 8200PF K
C622	24109822	CERAMIC CHIP, 50V B 8200PF K
C661	24073084	ELECTROLYTIC, 50V 4.7UF M 3A
C662	24073086	ELECTROLYTIC, 50V 10UF M 3A
C663	24073086	ELECTROLYTIC, 50V 10UF M 3A
C665	24109103	CERAMIC CHIP, 50V B 0.01UF K
C666	24073084	ELECTROLYTIC, 50V 4.7UF M 3A
C667	24794100	ELECTROLYTIC, 16V 10UF M
C668	24105560	CERAMIC CHIP, 50V CH 56PF J
C669	24105560	CERAMIC CHIP, 50V CH 56PF J
C680	24073073	ELECTROLYTIC, 35V 2200UF M 3A

Location No.	Parts No.	Description
C681	24109103	CERAMIC CHIP, 50V B 0.01UF K
C682	24073082	ELECTROLYTIC, 50V 2.2UF M 3A
C683	24073053	ELECTROLYTIC, 25V 100UF M 3A
C684	24795470	ELECTROLYTIC 04G, 25V 47UF M
⚠C801	24503004	PLASTIC FILM, AC275V 0.47UF M
⚠C802	24503002	PLASTIC FILM, AC275V 0.22UF M
C803	24503002	PLASTIC FILM, AC275V 0.22UF M
C805	24092281	CERAMIC DISC, AC250V E 4700PF
C809	24073103	200V 680UF RUBIKON CE692Q2D681M
C810	24073103	200V 680UF RUBIKON CE692Q2D681M
⚠C811	24092557	CERAMIC DISC, AC250V E 2200PF M
⚠C812	24092557	CERAMIC DISC, AC250V E 2200PF M
⚠C816	24092555	CERAMIC DISC, AC250V E 1000PF M
C861	24092342	CERAMIC DISC, 2KV R 560PF K
C862	24503045	PLASTIC FILM, 63V 0.22UF J
C863	24212221	CERAMIC DISC, 50V B 220PF K
C864	24590681	PLASTIC FILM CQ922M 50V 680PF J
C865	24073063	ELECTROLYTIC CE04P 35V 4.7UF M 3A
C866	24820223	PLASTIC FILM, 630V 0.022UF J
C868	24073068	ELECTROLYTIC, 35V 100UF M 3A
C883	24567104	PLASTIC FILM, 50V 0.1UF J
C884	24214331	CERAMIC DISC, 500V B 330PF K
C885	24073191	ELECTROLYTIC CE04P 35V 1500UF M 3A
C890	24214331	CERAMIC DISC, 500V B 330PF K
C891	24073161	ELECTROLYTIC CE04P 16V 3900UF M 3A
C892	24214331	CERAMIC DISC, 500V B 330PF K
C893	24073173	ELECTROLYTIC CE04P 10V 3900UF M 3A
C894	24214331	CERAMIC DISC, 500V B 330PF K
C895	24073095	ELECTROLYTIC, 50V 2200UF M 3A
C898	24503041	PLASTIC FILM , 63V 0.1UF J
C8200	24073067	ELECTROLYTIC CE04P 35V 47UF M 3A
C8201	24503047	PLASTIC FILM, 63V 0.33UF J
C8202	24073169	ELECTROLYTIC CE04P 25V 470UF M 3A
C8210	24073037	ELECTROLYTIC, 16V 47UF M 3A
C8211	24503047	PLASTIC FILM, 63V 0.33UF J
C8212	24503047	PLASTIC FILM, 63V 0.33UF J
C8214	24073169	ELECTROLYTIC CE04P 25V 470UF M 3A
C8220	24073068	ELECTROLYTIC, 35V 100UF M 3A
C8221	24073169	ELECTROLYTIC CE04P 25V 470UF M 3A
C8223	24073086	ELECTROLYTIC, 50V 10UF M 3A
C8224	24073087	ELECTROLYTIC, 50V 22UF M 3A

Location No.	Parts No.	Description
C8225	24073141	ELECTROLYTIC CE04P 10V 1000UF M 3A
C8240	24073038	ELECTROLYTIC, 16V 100UF M 3A
C8241	24503047	PLASTIC FILM, 63V 0.33UF J
C8242	24073141	ELECTROLYTIC CE04P 10V 1000UF M 3A
C8250	24073141	ELECTROLYTIC CE04P 10V 1000UF M 3A
C8251	24567334	PLASTIC FILM, 50V 0.33UF J
C8252	24073141	ELECTROLYTIC CE04P 10V 1000UF M 3A
C8253	24669339	ELECTROLYTIC, 50V 3.3UF M
C8905	24073002	ELECTROLYTIC CE04P 6.3V 220UF M 3A
C8911	24503047	PLASTIC FILM, 63V 0.33UF J
C8912	24503047	PLASTIC FILM, 63V 0.33UF J
C8930	24073067	ELECTROLYTIC CE04P 35V 47UF M 3A
C8931	24503047	PLASTIC FILM, 63V 0.33UF J
C8932	24073152	ELECTROLYTIC CE04P 16V 330UF M 3A
C8933	24073069	ELECTROLYTIC CE04P 35V 220UF M 3A
C8940	24073067	ELECTROLYTIC CE04P 35V 47UF M 3A
C8941	24503047	PLASTIC FILM, 63V 0.33UF J
C8942	24073152	ELECTROLYTIC CE04P 16V 330UF M 3A
C8943	24073069	ELECTROLYTIC CE04P 35V 220UF M 3A
CA81	24109183	CERAMIC CHIP, 50V B 18000PF K
CA82	24109183	CERAMIC CHIP, 50V B 18000PF K
CA83	24109102	CERAMIC CHIP, 50V B 1000PF K
CA84	24109183	CERAMIC CHIP, 50V B 18000PF K
CA85	24109183	CERAMIC CHIP, 50V B 18000PF K
CA86	24109183	CERAMIC CHIP, 50V B 18000PF K
CA87	24109183	CERAMIC CHIP, 50V B 18000PF K
CA88	24109102	CERAMIC CHIP, 50V B 1000PF K
CA89	24109183	CERAMIC CHIP, 50V B 18000PF K
CA90	24109183	CERAMIC CHIP, 50V B 18000PF K
CA91	24092730	CERAMIC CHIP, 16V B 0.1UF K
CA92	24092730	CERAMIC CHIP, 16V B 0.1UF K
CA93	24619040	ELEC. CHIP, 16V 10UF M 3A
CA94	24619040	ELEC. CHIP, 16V 10UF M 3A
CA95	24092730	CERAMIC CHIP, 16V B 0.1UF K
CA96	24092730	CERAMIC CHIP, 16V B 0.1UF K
CA97	24105330	CERAMIC CHIP, 50V CH 33PF J
CA98	24105330	CERAMIC CHIP, 50V CH 33PF J
CB01	24794470	ELECTROLYTIC, 16V 47UF M
CB51	24590103	PLASTIC FILM, 50V 0.01UF J
CB52	24794470	ELECTROLYTIC, 16V 47UF M
CB53	24503041	PLASTIC FILM , 63V 0.1UF J
CB54	24436221	CERAMIC DISC, 50V SL 220PF J
CB55	24797010	ELECTROLYTIC, 50V 1UF M
CB56	24794470	ELECTROLYTIC, 16V 47UF M
CB58	24794470	ELECTROLYTIC, 16V 47UF M
CB59	24590103	PLASTIC FILM, 50V 0.01UF J
CB60	24794100	ELECTROLYTIC, 16V 10UF M
CB61	24503041	PLASTIC FILM , 63V 0.1UF J
CB81	24092730	CERAMIC CHIP, 16V B 0.1UF K
CB504	24794100	ELECTROLYTIC, 16V 10UF M
CB505	24092398	CERAMIC DISC, 25V 0.1UF Z
CC01	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC02	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC03	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC04	24619100	ELECTROLYTIC, 16V 10UF M
CC05	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC06	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC07	24619100	ELECTROLYTIC, 16V 10UF M
CC08	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC09	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC10	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC11	24619100	ELECTROLYTIC, 16V 10UF M
CC12	24092538	CERAMIC CHIP, 10V F 1UF Z
CC13	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC14	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC15	24619100	ELECTROLYTIC, 16V 10UF M

Location No.	Parts No.	Description
CC16	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC17	24619100	ELECTROLYTIC, 16V 10UF M
CC18	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC19	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC20	24619100	ELECTROLYTIC, 16V 10UF M
CC22	24092538	CERAMIC CHIP, 10V F 1UF Z
CC24	24092538	CERAMIC CHIP, 10V F 1UF Z
CC25	24092538	CERAMIC CHIP, 10V F 1UF Z
CC26	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC27	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC28	24619102	ELECTROLYTIC, 16V 47UF M
CC30	24619100	ELECTROLYTIC, 16V 10UF M
CC31	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC32	24619100	ELECTROLYTIC, 16V 10UF M
CC33	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC34	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC35	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC36	24619100	ELECTROLYTIC, 16V 10UF M
CC40	24092538	CERAMIC CHIP, 10V F 1UF Z
CC41	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC42	24109103	CERAMIC CHIP, 50V B 0.01UF K
⚠ CE01	24503002	PLASTIC FILM, AC275V 0.22UF M
CE04	24092281	CERAMIC DISC, AC250V E 4700PF
CE05	24092281	CERAMIC DISC, AC250V E 4700PF
⚠ CE07	24092565	CERAMIC DISC, AC250V B 470PF K
⚠ CE08	24092565	CERAMIC DISC, AC250V B 470PF K
⚠ CE09	24092565	CERAMIC DISC, AC250V B 470PF K
CE10	24073217	ELECTROLYTIC 692Q 200V 560UF M
CE11	24591332	PLASTIC FILM, 50V 3300PF J
CE12	24073053	ELECTROLYTIC, 25V 100UF M 3A
CE13	24503213	PLASTIC FILM CF92 T 1500VH 1500PF H
CE14	24591471	PLASTIC FILM, 50V 470PF J
CE15	24092339	CERAMIC DISC, 2KV 330PF K
CE16	24212102	CERAMIC DISC, 50V B 1000PF K
CE17	24503041	PLASTIC FILM , 63V 0.1UF J
CE43	24503041	PLASTIC FILM , 63V 0.1UF J
CE50	24676100	ELECTROLYTIC CE04Q, 100V 10UF M 3A
CE51	24073155	ELECTROLYTIC, 16V 1000UF M 3A
CE52	24503041	PLASTIC FILM , 63V 0.1UF J
CE53	24214221	CERAMIC DISC, 500V B 220PF K
CE54	24503041	PLASTIC FILM , 63V 0.1UF J
CE55	24617006	ELECTROLYTIC 04CH, 25V 820UF M
CE56	24665221	ELECTROLYTIC CE04Q, 10V 220UF M 3A
CE57	24073038	ELECTROLYTIC, 16V 100UF M 3A
CE58	24073038	ELECTROLYTIC, 16V 100UF M 3A
CE59	24666331	ELECTROLYTIC 04Q, 16V 330UF M 3A
CE61	24073020	ELECTROLYTIC, 10V 1000UF M 3A
CE63	24666470	ELECTORLYTIC, 16V 47UF M 3A
CE64	24503047	PLASTIC FILM, 63V 0.33UF J
CE65	24666470	ELECTORLYTIC, 16V 47UF M 3A
CE66	24073138	ELECTROLYTIC CE04P 10V 220UF M 3A
CE67	24503047	PLASTIC FILM, 63V 0.33UF J
CE68	24073138	ELECTROLYTIC CE04P 10V 220UF M 3A
CE69	24669339	ELECTROLYTIC, 50V 3.3UF M
CE71	24214331	CERAMIC DISC, 500V B 330PF K
CE72	24214331	CERAMIC DISC, 500V B 330PF K
CE73	24214331	CERAMIC DISC, 500V B 330PF K
CE74	24214331	CERAMIC DISC, 500V B 330PF K
CE75	24214331	CERAMIC DISC, 500V B 330PF K
CE76	24214331	CERAMIC DISC, 500V B 330PF K
CE79	24669220	ELECTROLYTIC, 50V 22UF M 3A
CE80	24073157	ELECTROLYTIC CE04P 16V 1500UF M 3A
CE81	24073157	ELECTROLYTIC CE04P 16V 1500UF M 3A
CE82	24676470	ELECTROLYTIC, 100V 47UF M 3A
CE83	24073155	ELECTROLYTIC, 16V 1000UF M 3A
CE84	24073141	ELECTROLYTIC CE04P 10V 1000UF M 3A

Location No.	Parts No.	Description
CE85	24073158	ELECTROLYTIC CE04P 16V 2200UF M 3A
CE86	24073133	ELECTROLYTIC CE04P 6.3V 3300UF M 3A
CE87	24073141	ELECTROLYTIC CE04P 10V 1000UF M 3A
CE88	24073155	ELECTROLYTIC, 16V 1000UF M 3A
CF01	24073152	ELECTROLYTIC CE04P 16V 330UF M 3A
CR509	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
CS01	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS02	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS05	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS06	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS07	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS08	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS09	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS10	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS11	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS12	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS13	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS14	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS15	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS16	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS19	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS20	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS21	24085987	ELEC. NONPOLAR, 16V 4.7UF M 7L NP
CS22	24085987	ELEC. NONPOLAR, 16V 4.7UF M 7L NP
CS25	24109103	CERAMIC CHIP, 50V B 0.01UF K
CS26	24794470	ELECTROLYTIC, 16V 47UF M
CS27	24794220	ELECTROLYTIC, 16V 22UF M
CS28	24794100	ELECTROLYTIC, 16V 10UF M
CS29	24794100	ELECTROLYTIC, 16V 10UF M
CS30	24794100	ELECTROLYTIC, 16V 10UF M
CS33	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS34	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CV01	24092621	CERAMIC CHIP, 10V B 1UF K
CV02	24092621	CERAMIC CHIP, 10V B 1UF K
CV03	24092621	CERAMIC CHIP, 10V B 1UF K
CV04	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV05	24092621	CERAMIC CHIP, 10V B 1UF K
CV06	24092621	CERAMIC CHIP, 10V B 1UF K
CV11	24092621	CERAMIC CHIP, 10V B 1UF K
CV13	24100104	CERAMIC CHIP, 25V F 0.1UF Z @U103
	24794100	ELECTROLYTIC, 16V 10UF M @UV03
CV14	24092621	CERAMIC CHIP, 10V B 1UF K @U103
	24232103	CERAMIC DISC, 50V F 0.01UF Z @UV03
CV15	24100104	CERAMIC CHIP, 25V F 0.1UF Z @U103
	24232103	CERAMIC DISC, 50V F 0.01UF Z @UV03
CV27	24762471	ELECTROLYTIC, 04G 10V 470UF M
CV29	24763101	ELECTROLYTIC, 16V 100UF M
CV30	24092730	CERAMIC CHIP, 16V B 0.1UF K
CV38	24109102	CERAMIC CHIP, 50V B 1000PF K
CV39	24109102	CERAMIC CHIP, 50V B 1000PF K
CV46	24092621	CERAMIC CHIP, 10V B 1UF K
CV70	24794101	ELECTROLYTIC, 16V 100UF M
CV71	24092730	CERAMIC CHIP, 16V B 0.1UF K
CV72	24794220	ELECTROLYTIC, 16V 22UF M
CV73	24092730	CERAMIC CHIP, 16V B 0.1UF K
CV74	24092730	CERAMIC CHIP, 16V B 0.1UF K
CV75	24092730	CERAMIC CHIP, 16V B 0.1UF K
CV245	24092621	CERAMIC CHIP, 10V B 1UF K
CV246	24092621	CERAMIC CHIP, 10V B 1UF K
CV247	24092621	CERAMIC CHIP, 10V B 1UF K
CV249	24092621	CERAMIC CHIP, 10V B 1UF K
CV250	24092621	CERAMIC CHIP, 10V B 1UF K
CV251	24092621	CERAMIC CHIP, 10V B 1UF K
CY504	24109222	CERAMIC CHIP, 50V B 2200PF K
CY505	24105120	CERAMIC CHIP, 50V CH 12PF J
CY512	24092463	CERAMIC CHIP, 16V B 0.22UF K

Location No.	Parts No.	Description
RESISTORS		
R010	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R150	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R153	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R264	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
R265	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
R266	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
R286	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
R287	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
R288	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
R347	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R502	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R504	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R505	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
R506	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R510	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
R511	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R512	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
R513	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R514	24011332	CHIP, 1/20W 3.3K OHM J
R516	24011472	CHIP, 1/20W 4.7K OHM J
R520	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R521	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R523	24011332	CHIP, 1/20W 3.3K OHM J
R524	24011182	CHIP, METAL FILM, 1/20W 1.8K OHM J
R545	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R548	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R550	24011332	CHIP, 1/20W 3.3K OHM J
R552	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
R560	24011332	CHIP, 1/20W 3.3K OHM J
R561	24011471	CHIP, 1/20W 470 OHM J
R574	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R575	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R576	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
R601	24011822	CHIP, 1/20W 8.2K OHM J
R602	24011822	CHIP, 1/20W 8.2K OHM J
R603	24011122	CHIP, METAL FILM, 1/20W 1.2K OHM J
R604	24011122	CHIP, METAL FILM, 1/20W 1.2K OHM J
R605	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R606	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R609	24011563	CHIP, 1/20W 56K OHM J
R610	24011223	CHIP, 1/20W 22K OHM J
R611	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R612	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R613	24011223	CHIP, 1/20W 22K OHM J
R614	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R615	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R616	24011822	CHIP, 1/20W 8.2K OHM J
R621	24011391	CHIP, 1/20W 390 OHM J
R622	24011391	CHIP, 1/20W 390 OHM J
R626	24011223	CHIP, 1/20W 22K OHM J
R627	24011223	CHIP, 1/20W 22K OHM J
R661	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R662	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R663	24011822	CHIP, 1/20W 8.2K OHM J
R665	24011223	CHIP, 1/20W 22K OHM J
R666	24011473	CHIP, 1/20W 47K OHM J
R667	24011223	CHIP, 1/20W 22K OHM J
R668	24011473	CHIP, 1/20W 47K OHM J
R671	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R672	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R673	24011822	CHIP, 1/20W 8.2K OHM J
R674	24011472	CHIP, 1/20W 4.7K OHM J
R676	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R677	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R681	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J

Location No.	Parts No.	Description
R682	24011473	CHIP, 1/20W 47K OHM J
R683	24011223	CHIP, 1/20W 22K OHM J
R684	24011223	CHIP, 1/20W 22K OHM J
R687	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R688	24011224	CHIP, METAL FILM, 1/20W 220K OHM J
R693	24000445	CHIP JUMPER, 1608TYPE
R697	24553561	OXIDE METAL FILM, 1W 560 OHM J
R698	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R699	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R810	24568479	CERAMIC COVERED, 7W 4.7 OHM J
R811	24007061	CERAMIC COVERED, 2W 1.8 OHM K
R842	24376563	CARB0N FILM, 1/2W 56K OHM J
R843	24376563	CARB0N FILM, 1/2W 56K OHM J
R844	24366103	CARBON FILM, 1/6W 10K OHM J
R845	24366102	CARBON FILM, 1/6W 1K OHM J
R846	24366471	CARBON FILM, 1/6W 470 OHM J
R847	24366473	CARBON FILM, 1/6W 47K OHM J
R848	24366102	CARBON FILM, 1/6W 1K OHM J
R849	24552470	OXIDE METAL FILM, 1/2W 47 OHM J
R850	24366103	CARBON FILM, 1/6W 10K OHM J
R860	24382101	OXIDE METAL FILM, 1W 100 OHM J
R861	24383333	OXIDE METAL FILM, 2W 33K OHM J
R862	24019463	METAL PLATE RK99 2W R22 J
R863	24019461	METAL PLATE, 2W 0.15 OHM J
R864	24321828	METAL FILM, 1/2W 0.82 OHM J
R865	24381221	OXIDE METAL FILM, 1/2W 220 OHM J
R866	24366681	CARBON FILM, 1/6W 680 OHM J
R867	24366152	CARBON FILM, 1/6W 1.5K OHM J
R868	24555473	METAL OXIDE FILM B 3W 47K J
R869	24366152	CARBON FILM, 1/6W 1.5K OHM J
R870	24366154	CARBON FILM, 1/6W 150K OHM J
R881	24366222	CARBON FILM, 1/6W 2.2K OHM J
R882	24366471	CARBON FILM, 1/6W 470 OHM J
R885	24366102	CARBON FILM, 1/6W 1K OHM J
R886	24000525	METAL FILM, 1/4W 4.7K OHM F
R887	24367683	CARBON FILM, 1/6W 68K OHM G
R888	24000525	METAL FILM, 1/4W 4.7K OHM F
R891	24555331	OXIDE METAL FILM, 3W 330 OHM J
R892	24555331	OXIDE METAL FILM, 3W 330 OHM J
⚠ R899	24005014	METAL FILM, 1W 8.2M OHM J
R8200	24367390	CARBON FILM 1/6W 390 G
R8210	24000370	METAL FILM, 1/4W 3.3K OHM F
R8211	24000527	METAL FILM, 1/4W 5.6K OHM F
R8215	24366224	CARBON FILM, 1/6W 220K OHM J
R8220	24367390	CARBON FILM 1/6W 390 G
R8222	24367820	CARBON FILM, 1/6W 82 OHM G
R8240	24000366	METAL FILM, 1/4W 2.2K OHM F
R8241	24000360	METAL FILM, 1/4W 1.2K OHM F
R8242	24367101	CARBON FILM, 1/6W 100 OHM G
R8250	24000145	METAL FILM, 1/4W 330 OHM F
R8251	24000145	METAL FILM, 1/4W 330 OHM F
R8252	24367392	CARBON FILM, 1/6W 3.9K OHM G
R8902	24366332	CARBON FILM, 1/6W 3.3K OHM J
R8903	24366332	CARBON FILM, 1/6W 3.3K OHM J
R8904	24366472	CARBON FILM, 1/6W 4.7K OHM J
R8905	24366681	CARBON FILM, 1/6W 680 OHM J
R8908	24366104	CARBON FILM, 1/6W 100K OHM J
R8910	24366472	CARBON FILM, 1/6W 4.7K OHM J
R8911	24366103	CARBON FILM, 1/6W 10K OHM J
R8912	24366223	CARBON FILM, 1/6W 22K OHM J
R8913	24366334	CARBON FILM, 1/6W 330K OHM J
R8914	24366223	CARBON FILM, 1/6W 22K OHM J
R8915	24366102	CARBON FILM, 1/6W 1K OHM J
R8931	24367123	CARBON FILM, 1/6W 12K OHM G
R8932	24367152	CARBON FILM, 1/6W 1.5K OHM G
R8934	24367472	CARBON FILM, 1/6W 4.7K OHM G

Location No.	Parts No.	Description
R8941	24367123	CARBON FILM, 1/6W 12K OHM G
R8942	24367152	CARBON FILM, 1/6W 1.5K OHM G
R8944	24367472	CARBON FILM, 1/6W 4.7K OHM G
R8950	24366103	CARBON FILM, 1/6W 10K OHM J
R8951	24366103	CARBON FILM, 1/6W 10K OHM J
RA71	24011822	CHIP, 1/20W 8.2K OHM J
RA72	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
RA73	24011273	CHIP, 1/20W 27K OHM J
RA75	24011822	CHIP, 1/20W 8.2K OHM J
RA76	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
RA77	24011114	CHIP, METAL FILM, 1/20W 110K OHM J
RA78	24000445	CHIP JUMPER, 1608TYPE
RA79	24000445	CHIP JUMPER, 1608TYPE
RA81	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA82	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA84	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA85	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA86	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA87	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA89	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA90	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA91	24011470	CHIP, 1/20W 47 OHM J
RA92	24011470	CHIP, 1/20W 47 OHM J
RA93	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA94	24011332	CHIP, 1/20W 3.3K OHM J
RA95	24011332	CHIP, 1/20W 3.3K OHM J
RB15	24366471	CARBON FILM, 1/6W 470 OHM J
RB19	24366470	CARBON FILM, 1/6W 47 OHM J
RB51	24366224	CARBON FILM, 1/6W 220K OHM J
RB52	24366123	CARBON FILM, 1/6W 12K OHM J
RB53	24366123	CARBON FILM, 1/6W 12K OHM J
RB54	24366123	CARBON FILM, 1/6W 12K OHM J
RB55	24366224	CARBON FILM, 1/6W 220K OHM J
RB56	24366151	CARBON FILM, 1/6W 150 OHM J
RB57	24366103	CARBON FILM, 1/6W 10K OHM J
RB58	24366103	CARBON FILM, 1/6W 10K OHM J
RB59	24366122	CARBON FILM, 1/6W 1.2K OHM J
RB60	24366224	CARBON FILM, 1/6W 220K OHM J
RB61	24366100	CARBON FILM, 1/6W 10 OHM J
RB62	24366272	CARBON FILM, 1/6W 2.7K OHM J
RB63	24366271	CARBON FILM, 1/6W 270 OHM J
RB67	24366221	CARBON FILM, 1/6W 220 OHM J
RB69	24366272	CARBON FILM, 1/6W 2.7K OHM J
RB70	24366331	CARBON FILM, 1/6W 330 OHM J
RB81	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RB82	24011471	CHIP, 1/20W 470 OHM J
RB83	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RB84	24011473	CHIP, 1/20W 47K OHM J
RB87	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RB88	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RB89	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB90	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB92	24011473	CHIP, 1/20W 47K OHM J
RB93	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RB504	24366104	CARBON FILM, 1/6W 100K OHM J
RB505	24366101	CARBON FILM, 1/6W 100 OHM J
RB506	24366390	CARBON FILM, 1/6W 39 OHM J
RB558	24366223	CARBON FILM, 1/6W 22K OHM J
RB559	24366223	CARBON FILM, 1/6W 22K OHM J
RB561	24366101	CARBON FILM, 1/6W 100 OHM J
RB562	24366104	CARBON FILM, 1/6W 100K OHM J
RB563	24366390	CARBON FILM, 1/6W 39 OHM J
RB567	24366223	CARBON FILM, 1/6W 22K OHM J
RC01	24011223	CHIP, 1/20W 22K OHM J
RC02	24011220	CHIP, METAL FILM, 1/20W 22 OHM J
RC03	24011220	CHIP, METAL FILM, 1/20W 22 OHM J

Location No.	Parts No.	Description
RC04	24011220	CHIP, METAL FILM, 1/20W 22 OHM J
RC05	24011220	CHIP, METAL FILM, 1/20W 22 OHM J
RC06	24011220	CHIP, METAL FILM, 1/20W 22 OHM J
RC07	24011220	CHIP, METAL FILM, 1/20W 22 OHM J
RC08	24011220	CHIP, METAL FILM, 1/20W 22 OHM J
RC09	24011270	CHIP, 1/20W 27 OHM J
RC10	24011270	CHIP, 1/20W 27 OHM J
RC13	24000824	CHIP JUMPER, 2125TYPE
RC14	24000824	CHIP JUMPER, 2125TYPE
RC15	24000824	CHIP JUMPER, 2125TYPE
RC16	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RC17	24000824	CHIP JUMPER, 2125TYPE
RC18	24000824	CHIP JUMPER, 2125TYPE
RC19	24000824	CHIP JUMPER, 2125TYPE
RC20	24000824	CHIP JUMPER, 2125TYPE
RC21	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RC22	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RC23	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RC25	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RC26	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RC27	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RC32	24011331	CHIP, 1/20W 330 OHM J
RC33	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RC34	24011331	CHIP, 1/20W 330 OHM J
RC35	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RC36	24011331	CHIP, 1/20W 330 OHM J
RC37	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RC38	24011331	CHIP, 1/20W 330 OHM J
RC39	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RC40	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RC41	24011105	CHIP, METAL FILM, 1/20W 1M OHM J
RC49	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RC50	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
RC51	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RC52	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RC53	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RC54	24011220	CHIP, METAL FILM, 1/20W 22 OHM J
RC58	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RC60	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RC61	24011564	CHIP, 1/20W 560K OHM J
RC62	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RE10	24382223	OXIDE METAL FILM, 1W 22K OHM J
RE11	24322568	OXIDE METAL FILM, 1W 0.56 OHM J
RE12	24322568	OXIDE METAL FILM, 1W 0.56 OHM J
RE13	24381681	OXIDE METAL FILM, 1/2W 680 OHM J
RE14	24383330	OXIDE FILM 2W 33. J
RE15	24383330	OXIDE FILM 2W 33. J
RE16	24366682	CARBON FILM, 1/6W 6.8K OHM J
RE17	24366152	CARBON FILM, 1/6W 1.5K OHM J
RE18	24381101	OXIDE METAL FILM, 1/2W 100 OHM J
RE22	24366102	CARBON FILM, 1/6W 1K OHM J
RE40	24366471	CARBON FILM, 1/6W 470 OHM J
RE43	24366102	CARBON FILM, 1/6W 1K OHM J
RE44	24000529	METAL FILM, 1/4W 6.8K OHM F
RE45	24000356	METAL FILM, 1/4W 820 OHM F
RE46	24000529	METAL FILM, 1/4W 6.8K OHM F
RE48	24366222	CARBON FILM, 1/6W 2.2K OHM J
RE50	24000147	METAL FILM, 1/4W 470 OHM F
RE51	24000155	METAL FILM 1/4W 15 F
RE52	24000167	METAL FILM, 1/4W 56 OHM F 50P
RE53	24000135	METAL FILM 1/4W 120 F
RE54	24000220	METAL FILM, 1/4W 390 OHM F
RE55	24366223	CARBON FILM, 1/6W 22K OHM J
RE60	24382332	OXIDE FILM 1W 3.3K J
RE80	24000245	METAL FILM, 1/4W 33K OHM F
RE81	24000250	METAL FILM, 1/4W 56K OHM F

Location No.	Parts No.	Description
RF01	24366103	CARBON FILM, 1/6W 10K OHM J
RF02	24366122	CARBON FILM, 1/6W 1.2K OHM J
RF03	24366103	CARBON FILM, 1/6W 10K OHM J
RF04	24366472	CARBON FILM, 1/6W 4.7K OHM J
RF05	24382680	OXIDE METAL FILM, 1W 68 OHM J
RS01	24011562	CHIP, 1/20W 5.6K OHM J
RS02	24011562	CHIP, 1/20W 5.6K OHM J
RS05	24011562	CHIP, 1/20W 5.6K OHM J
RS06	24011562	CHIP, 1/20W 5.6K OHM J
RS07	24011562	CHIP, 1/20W 5.6K OHM J
RS08	24011562	CHIP, 1/20W 5.6K OHM J
RS09	24011562	CHIP, 1/20W 5.6K OHM J
RS10	24011562	CHIP, 1/20W 5.6K OHM J
RS11	24011562	CHIP, 1/20W 5.6K OHM J
RS12	24011562	CHIP, 1/20W 5.6K OHM J
RS13	24011562	CHIP, 1/20W 5.6K OHM J
RS14	24011562	CHIP, 1/20W 5.6K OHM J
RS15	24011562	CHIP, 1/20W 5.6K OHM J
RS16	24011562	CHIP, 1/20W 5.6K OHM J
RS19	24011562	CHIP, 1/20W 5.6K OHM J
RS20	24011562	CHIP, 1/20W 5.6K OHM J
RS21	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS22	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS23	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS24	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS27	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS28	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS29	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
RS30	24011182	CHIP, METAL FILM, 1/20W 1.8K OHM J
RS31	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
RS32	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RS33	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RS34	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RS35	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RS36	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RS37	24011223	CHIP, 1/20W 22K OHM J
RS38	24011223	CHIP, 1/20W 22K OHM J
RS39	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS40	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV007	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RV008	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV009	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV011	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RV012	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV013	24011271	CHIP, 1/20W 270 OHM J
RV023	24011821	CHIP, 1/20W 820 OHM J
RV024	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RV025	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV073	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RV01	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV03	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV06	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV07	24011562	CHIP, 1/20W 5.6K OHM J
RV08	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV09	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV10	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV11	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV12	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV14	24011562	CHIP, 1/20W 5.6K OHM J
RV15	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV17	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV19	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV20	24366750	CARBON FILM, 1/6W 75 OHM J
RV21	24011562	CHIP, 1/20W 5.6K OHM J @U103
	24366750	CARBON FILM, 1/6W 75 OHM J @UV03
RV22	24366750	CARBON FILM, 1/6W 75 OHM J

Location No.	Parts No.	Description
RV23	24366101	CARBON FILM, 1/6W 100 OHM J
RV32	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RV33	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RV34	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RV35	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
RV36	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
RV37	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV38	24011223	CHIP, 1/20W 22K OHM J
RV40	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
RV41	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
RV42	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
RV43	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
RV44	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV61	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV70	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV74	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV76	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RV85	24366471	CARBON FILM, 1/6W 470 OHM J
RV86	24366471	CARBON FILM, 1/6W 470 OHM J
RV88	24000445	CHIP JUMPER, 1608TYPE
RV89	24011680	CHIP, METAL FILM, 1/20W 68 OHM J
RV91	24011330	CHIP, 1/20W 33 OHM J
RV92	24000445	CHIP JUMPER, 1608TYPE
RV93	24000445	CHIP JUMPER, 1608TYPE
RV94	24000445	CHIP JUMPER, 1608TYPE
RV95	24000445	CHIP JUMPER, 1608TYPE
RV96	24000445	CHIP JUMPER, 1608TYPE
RV97	24000445	CHIP JUMPER, 1608TYPE
RV146	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV147	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV323	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV324	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV325	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV326	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV346	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV578	24011332	CHIP, 1/20W 3.3K OHM J
RV579	24011332	CHIP, 1/20W 3.3K OHM J
RY501	24011303	CHIP, METAL FILM, 1/20W 30K OHM J
COIL & TRANSFORMERS		
L101	23289845	COIL, PEAKING, TRF4680AT
L103	23289844	COIL, PEAKING, TRF4470AT
L520	23246253	INDUCTOR, CHIP 10MMH K COLTRF4100CN
L522	23246253	INDUCTOR, CHIP 10MMH K COLTRF4100CN
L861	23103145	FERRITE CHOKE, TEM2011AA
L862	23103775	FERRITE CHOKE, TEM2014
L881	23103145	FERRITE CHOKE, TEM2011AA
L884	23103145	FERRITE CHOKE, TEM2011AA
L885	23103145	FERRITE CHOKE, TEM2011AA
L886	23103145	FERRITE CHOKE, TEM2011AA
L888	23248321	COIL, CHOKE, TLN3462AH
L890	23248292	COIL, CHOKE, TLN3499GH
L892	23248292	COIL, CHOKE, TLN3499GH
L893	23248213	COIL, CHOKE, TLN3481AH
L8930	23248292	COIL, CHOKE, TLN3499GH
L8931	23248292	COIL, CHOKE, TLN3499GH
L8940	23248292	COIL, CHOKE, TLN3499GH
L8941	23248292	COIL, CHOKE, TLN3499GH
LB51	23237987	COIL, PEAKING, TRF4100AC
LC02	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
LC03	23103271	FILTER, EMI 2012 201OHM 0.35A TEM2033AD
LC04	23103271	FILTER, EMI 2012 201OHM 0.35A TEM2033AD
LC05	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
LC06	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
LE11	23103145	FERRITE CHOKE, TEM2011AA
LE12	23103145	FERRITE CHOKE, TEM2011AA

Location No.	Parts No.	Description
LE13	23103145	FERRITE CHOKE,TEM2011AA
LE50	23289843	COIL, PEAKING, TRF4330AT
LE51	23280019	COIL, PEAKING, TRF4330AZ
LE53	23248257	COIL, CHOKE, TLN3503AH
LE54	23248213	COIL, CHOKE, TLN3481AH
LE55	23248247	COIL, CHOKE, TLN3499AH
LE56	23280016	COIL, PEAKING, TRF4100AZ
LE57	23248320	COIL, CHOKE 15X23H 100MMH 2.5A TLN3441AH
LE58	23248247	COIL, CHOKE, TLN3499AH
LE59	23280019	COIL, PEAKING, TRF4330AZ
LE60	23248247	COIL, CHOKE, TLN3499AH
LE71	23103145	FERRITE CHOKE, TEM2011AA
LE72	23103145	FERRITE CHOKE, TEM2011AA
LE73	23103145	FERRITE CHOKE, TEM2011AA
LE74	23103145	FERRITE CHOKE, TEM2011AA
LE75	23103145	FERRITE CHOKE, TEM2011AA
LE76	23103145	FERRITE CHOKE, TEM2011AA
LF01	23280022	COIL, PEAKING, TRF4101AZ
LF02	23280022	COIL, PEAKING, TRF4101AZ
LV13	23246253	INDUCTOR, CHIP 10MMH K COLTRF4100CN
LV20	23238705	COIL, PEAKING, TRF4560AJ
LY503	23246253	INDUCTOR, CHIP 10MMH K COLTRF4100CN
⚠ T801	23211776	COIL, LINE FILTER 37X44H 6.8MH TRF3197AH
⚠ T802	23211776	COIL, LINE FILTER 37X44H 6.8MH TRF3197AH
⚠ T803	23211765	COIL, LF LH35V TRF3239AH
⚠ T804	23211725	COIL, LINE FILTER, TRF3228AQ
⚠ T862	23217682	TRANSFORMER, CONVERTER TPW3553AS
⚠ TE01	23211725	COIL, LINE FILTER, TRF3228AQ
⚠ TE60	23217662	TRANSFORMER, CONVERTER TPW3547AS
SEMICONDUCTORS		
Q501	23009929	IC, VCD NTSC SOP30 TA1383FG(DRY,EL)
Q502	23205014	TRANSISTOR, 2SC4667-O
Q511	23314994	TRANSISTOR, 2SA1576A106
Q515	23314994	TRANSISTOR, 2SA1576A106
Q516	23314994	TRANSISTOR, 2SA1576A106
Q518	23314993	TRANSISTOR, 2SC4081 Q
Q519	23314993	TRANSISTOR, 2SC4081 Q
Q601	23009603	IC, AN7580
Q612	23205005	TRANSISTOR, KTA2014Y
Q613	23205006	TRANSISTOR, KTC4075Y
Q614	23205236	TRANSISTOR, NPN R1=4.7K R2=47K KRC106S (SOT-23)
Q661	23205204	TRANSISTOR, KTC2875B-RTK
Q662	23205204	TRANSISTOR, KTC2875B-RTK
Q663	23906596	IC, BA4558
Q664	23205246	TRANSISTOR, PNP R1=R2=47K KRA104S (SOT-23)
Q681	23205204	TRANSISTOR, KTC2875B-RTK
Q682	23205204	TRANSISTOR, KTC2875B-RTK
Q801	23135037	IC, STR-F6268S
⚠ Q841	23000823	IC, PHOTO COUPLER, TLP421F(GR)
Q845	23314965	TRANSISTOR, KTC3198 Y
Q846	23314965	TRANSISTOR, KTC3198 Y
Q847	23314965	TRANSISTOR, KTC3198 Y
⚠ Q862	23000823	IC, PHOTO COUPLER, TLP421F(GR)
Q881	23000701	IC, NJM431L
Q8200	23085050	IC, +12V 2% REG. TO220 SI-3120J(LF1101)
Q8210	23000469	IC, PQ5EV3
Q8220	23904163	IC, SI-3090CA
Q8230	23009546	IC, REGULATOR +5V 3% NJM2396F05D
Q8240	23009998	IC, ADJ REG. VO=1.5V-12.0V BA00JC5WT-V5
Q8250	23000469	IC, PQ5EV3
Q8251	70200563	IC, RESET VS=2.9V PST9129 PST9129
Q8901	23314965	TRANSISTOR, KTC3198 Y
Q8902	23314965	TRANSISTOR, KTC3198 Y
Q8904	23314962	TRANSISTOR, KTA1266 Y
Q8911	23314965	TRANSISTOR, KTC3198 Y

Location No.	Parts No.	Description
Q8912	23314965	TRANSISTOR, KTC3198 Y
Q8930	23009998	IC, ADJ REG. VO=1.5V-12.0V BA00JC5WT-V5
Q8940	23009998	IC, ADJ REG. VO=1.5V-12.0V BA00JC5WT-V5
Q8950	23119747	IC, OPE AMP, TA75358P
QA91	23900992	SENSOR, TOUCH QT2C01-AS QT2C01-AS
QA92	23900992	SENSOR, TOUCH QT2C01-AS QT2C01-AS
QA93	23000283	IC, R1121N
QB51	23319808	IC, M5218AP
QB52	23314965	TRANSISTOR, KTC3198 Y
QB53	23314962	TRANSISTOR, KTA1266 Y
QB81	23314204	TRANSISTOR, 2SC2412K,Q
QB83	70200849	IC, DUAL COMPARATOR BA10393F
QB84	23314204	TRANSISTOR, 2SC2412K,Q
QB502	23114422	TRANSISTOR, 2SA562TM-Y
QB508	23114422	TRANSISTOR, 2SA562TM-Y
QB509	23114623	TRANSISTOR, 2SC2878-A(TEM
QB510	23114460	TRANSISTOR, RN1204
QB511	23114460	TRANSISTOR, RN1204
QB512	23114623	TRANSISTOR, 2SC2878-A(TEM
QB513	23114460	TRANSISTOR, RN1204
QC01	23085057	IC, USB CONTROLLER
QC02	23085062	IC, UPA1813
QC03	23085062	IC, UPA1813
QC04	23085062	IC, UPA1813
QC05	23085062	IC, UPA1813
QC08	23085061	IC, REG PQ033EZ01ZP
QE01	23135010	IC, STR-G6653
⚠ QE05	23009270	IC, PHOTO COUPLER, PS2581L1(D)
QE40	23000701	IC, NJM431L
QE50	23000806	IC, SI-8033SS
QE52	23009998	IC, ADJ REG. VO=1.5V-12.0V BA00JC5WT-V5
QE53	23000469	IC, PQ5EV3
QE54	23314141	TRANSISTOR, 2SC3852
QF01	23114735	TRANSISTOR, 2SA102-Y(C)
QF02	23314965	TRANSISTOR, KTC3198 Y
QS01	23009916	IC, MM1631AJBE
QS02	23314993	TRANSISTOR, 2SC4081 Q
QS03	23314993	TRANSISTOR, 2SC4081 Q
QS04	23314993	TRANSISTOR, 2SC4081 Q
QS05	23205246	TRANSISTOR, PNP R1=R2=47K KRA104S (SOT-23)
QS06	23205204	TRANSISTOR, KTC2875B-RTK
QS07	23205204	TRANSISTOR, KTC2875B-RTK
QV001	23314993	TRANSISTOR, 2SC4081 Q
QV002	23314993	TRANSISTOR, 2SC4081 Q
QV003	23314993	TRANSISTOR, 2SC4081 Q
QV004	23314994	TRANSISTOR, 2SA1576A106
QV008	23314994	TRANSISTOR, 2SA1576A106
QV01	23009940	IC, VIDEO S/W MM1630AQ
QV48	23114528	TRANSISTOR, 2SC1740S
QV70	23314993	TRANSISTOR, 2SC4081 Q
QV71	23314993	TRANSISTOR, 2SC4081 Q
D601	23316231	DIODE, 1SS355
D602	23316231	DIODE, 1SS355
D603	23316231	DIODE, 1SS355
D604	23316231	DIODE, 1SS355
D605	23316231	DIODE, 1SS355
D606	23316231	DIODE, 1SS355
D607	23316231	DIODE, 1SS355
D608	23316231	DIODE, 1SS355
D609	23316231	DIODE, 1SS355
D611	23316231	DIODE, 1SS355
D612	23316231	DIODE, 1SS355
D613	23316231	DIODE, 1SS355
D614	23316231	DIODE, 1SS355
D615	23316231	DIODE, 1SS355
D616	23316231	DIODE, 1SS355

Location No.	Parts No.	Description
D617	23316231	DIODE, 1SS355
D628	23316597	DIODE, ZENER, MA8120-M
D801	23316393	DIODE, D5SB60, 4009 F05
D821	23118859	DIODE, 1SS133
D844	23316673	DIODE, ZENER, MTZJ5.6C
D845	23118859	DIODE, 1SS133
D848	23118859	DIODE, 1SS133
D849	23118859	DIODE, 1SS133
D850	23118513	DI0DE, ZENER, RD11ESA B3
D861	23316672	DIODE, ZENER, MTZJ5.6B
D863	23118859	DIODE, 1SS133
D864	23357366	DIODE, FR105-B5
D865	23118859	DIODE, 1SS133
D866	23316381	DIODE, RU1P
D867	23316754	DIODE, ZENER, MTZJ33B
D883	23316184	DIODE, FML-G12S
D886	23357042	DIODE, FMX-12S(023-108)
D887	23316768	DIODE, FMB-26L
D888	23357353	DIODE, FML-G22S
D894	23316677	DIODE, ZENER, MTZJ6.8A
D895	23316677	DIODE, ZENER, MTZJ6.8A
D896	23316677	DIODE, ZENER, MTZJ6.8A
D897	23316677	DIODE, ZENER, MTZJ6.8A
D898	23316677	DIODE, ZENER, MTZJ6.8A
⚠ D899	24019485	VARISTOR, TNR10V431K
D8200	23118859	DIODE, 1SS133
D8902	23118859	DIODE, 1SS133
D8903	23118859	DIODE, 1SS133
D8904	23316673	DIODE, ZENER, MTZJ5.6C
D8905	23316673	DIODE, ZENER, MTZJ5.6C
D8911	23316673	DIODE, ZENER, MTZJ5.6C
D8912	23316673	DIODE, ZENER, MTZJ5.6C
D8913	23316673	DIODE, ZENER, MTZJ5.6C
D8914	23118859	DIODE, 1SS133
D8915	23118859	DIODE, 1SS133
D8922	23118530	DIODE, ZENER, RD5.6ESA B1
D8930	23118859	DIODE, 1SS133
D8931	23118859	DIODE, 1SS133
D8940	23118859	DIODE, 1SS133
D8941	23118859	DIODE, 1SS133
D8950	23118528	DIODE, ZENER, RD5.6ESA B3
D8951	23118528	DIODE, ZENER, RD5.6ESA B3
DB03	23358522	DIODE, LED, SIR-56SB3F
DB51	23358573	PHOTO DIODE, PIN 940NM HPI-2FER4
DB52	23118859	DIODE, 1SS133
DB54	23118859	DIODE, 1SS133
DB55	23118859	DIODE, 1SS133
DB56	23118859	DIODE, 1SS133
DB81	23358584	LED, LAMP RED SML-810UTT86 SML-811UTT86
DB82	23358585	LED, LAMP GREEN SML-810MTT86 SML-810MTT86
DB501	23118859	DIODE, 1SS133
DB504	23118859	DIODE, 1SS133
DE01	23316391	DIODE, D3SB60(4103)
DE10	23316672	DIODE, ZENER, MTZJ5.6B
DE12	23118859	DIODE, 1SS133
DE13	23118859	DIODE, 1SS133
DE14	23118859	DIODE, 1SS133
DE15	23357366	DIODE, FR105-B5
DE18	23316269	DIODE, AK04
DE19	23316746	DIODE, ZENER, MTZJ27B
DE52	23118213	DIODE, RK44,
DE54	23316734	DIODE, ZENER, MTZJ20B
DE55	23316746	DIODE, ZENER, MTZJ27B
DE60	23357366	DIODE, FR105-B5
DE61	23118052	DIODE, RU4Z LF-L1
DE71	23357434	DIODE, YG801C04RF119

Location No.	Parts No.	Description
DE72	23316714	DIODE, RL2Z
DE73	23357434	DIODE, YG801C04RF119
DE74	23357434	DIODE, YG801C04RF119
DE75	23316184	DIODE, FML-G12S
DE76	23357434	DIODE, YG801C04RF119
DE79	23316666	DIODE, ZENER, MTZJ4.7B
DV07	23316577	DIODE, ZENER, MA8068-M
DV14	23316577	DIODE, ZENER, MA8068-M
KB01	23000852	IC, REMOCON RECEIVER, PIC-37043TE2
MISCELLANEOUS		
B110	23059128	BACK TERMINAL BOARD, DIGI 52HM94
B112	23059129	PIECE COVER
BB10	23713014	CONNECTOR, BRIDGE PLUG 16P 1.5
BB11	23713013	CONNECTOR, SOCKET, B-B 16P 1.5
BB20	23713014	CONNECTOR, BRIDGE PLUG 16P 1.5
BB21	23713013	CONNECTOR, SOCKET, B-B 16P 1.5
BB70	23713309	PLUG , TAC-A46P-B1
BB71	23903159	SOCKET, TAC A46X B1 TAC-A46X-B1
⚠ F801	23144684	FUSE, CARTRIDGE 5X20 125V 8.0A
F801A	23165433	FUSE HOLDER, 5.2 SOC
⚠ F860	23144714	FUSE, AXIAL 125V 4.0A
⚠ F880	23144714	FUSE, AXIAL 125V 4.0A
⚠ F883	23144715	FUSE, AXIAL 125V 5.0A
⚠ F884	23144715	FUSE, AXIAL 125V 5.0A
⚠ F899	23144691	FUSE, CARTRIDGE 5X20 250V 2.0A
F899A	23165433	FUSE HOLDER, 5.2 SOC
⚠ FE01	23144710	FUSE, AXIAL 125V 2.0A
⚠ FE72	23144708	FUSE, AXIAL 125V 1.0A
⚠ FE73	23144715	FUSE, AXIAL 125V 5.0A
⚠ FE74	23144715	FUSE, AXIAL 125V 5.0A
⚠ FE75	23144714	FUSE, AXIAL 125V 4.0A
⚠ FE76	23144715	FUSE, AXIAL 125V 5.0A
⚠ FE77	23144715	FUSE, AXIAL 125V 5.0A
⚠ FE79	23144709	FUSE, AXIAL 125V 1.5A
G101	23103828	INDUCTOR, BEAD, TEM2121M
G102	23103828	INDUCTOR, BEAD, TEM2121M
GJ105	24000445	CHIP JUMPER, 1608TYPE
GJ150	23103828	INDUCTOR, BEAD, TEM2121M
GJ151	23103828	INDUCTOR, BEAD, TEM2121M
GR103	24000445	CHIP JUMPER, 1608TYPE
H002	23148084	IF MODULE, US WOW MSP4440G MVUS53
H003	23344497	SWITCH, 2I3O US POD JALCO RSU142
H003A	23740989	NUT, F-CONNECTOR 2H BS
JR001	24000445	CHIP JUMPER, 1608TYPE
JR002	24000445	CHIP JUMPER, 1608TYPE
JR003	24000445	CHIP JUMPER, 1608TYPE
JR004	24000445	CHIP JUMPER, 1608TYPE
JR005	24000445	CHIP JUMPER, 1608TYPE
JR006	24000445	CHIP JUMPER, 1608TYPE
JR007	24000445	CHIP JUMPER, 1608TYPE
JR008	24000445	CHIP JUMPER, 1608TYPE
JR009	24000445	CHIP JUMPER, 1608TYPE
JR010	24000445	CHIP JUMPER, 1608TYPE
JR011	24000445	CHIP JUMPER, 1608TYPE
JR012	24000445	CHIP JUMPER, 1608TYPE
JR013	24000445	CHIP JUMPER, 1608TYPE
JR014	24000445	CHIP JUMPER, 1608TYPE
M802A	23103839	FERRITE CORE, TFE1012
M811A	23103839	FERRITE CORE, TFE1012
MA01	23389246	CABLE, FFC P1.25-15-300 P1.25-15-300
MJ900	23389245	CABLE, FFC P1.00-18-387 P1.00-18-387
MJ901	23389244	CABLE, FFC P1.00-14-396 P1.00-14-396
MV01	23368868	CABLE, LVDS 300MM LVDS
MV01A	23103840	FERRITE CORE, TFE1013
MX18	23389257	CABLE, FFC P1.25-11-515 P1.25-11-515

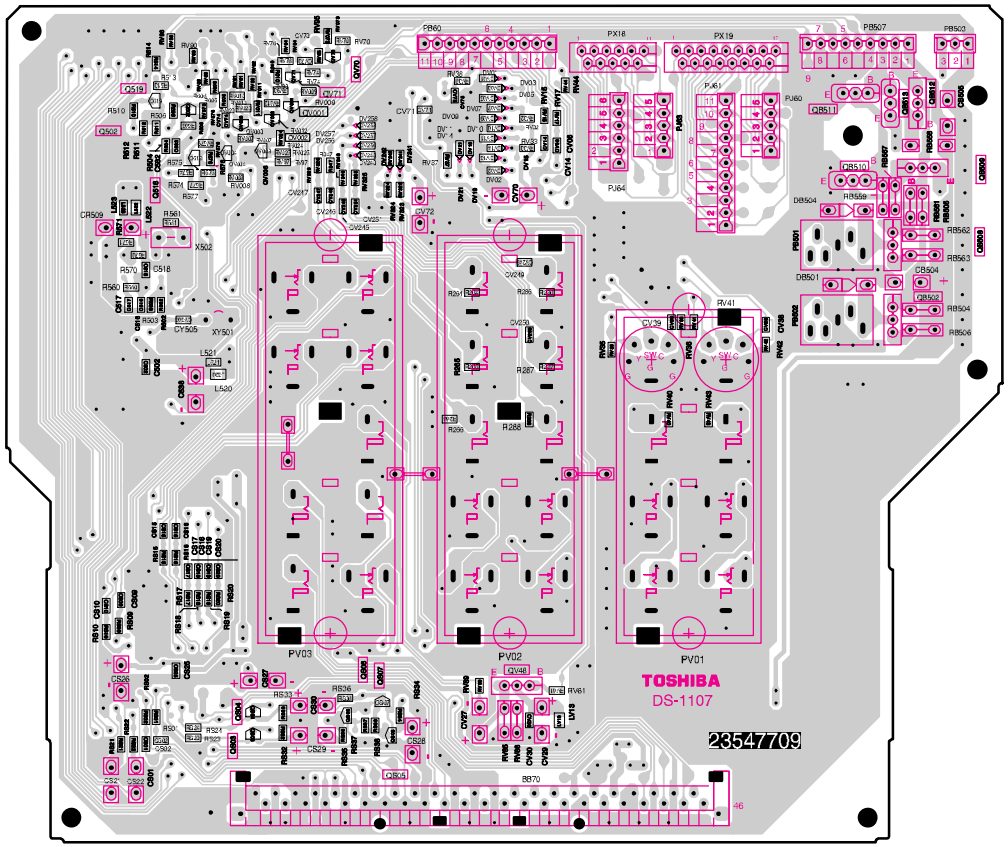
Location No.	Parts No.	Description
MX19	23389258	CABLE, FFC P1.25-17-491 P1.25-17-491
P105	23368578	CONNECTOR, PLUG 4P, 2.5MM G JST-EH, B4B-EH-F1-TV4
⚠ P800	23368013	CONNECTOR, PLUG, 2P 11.88MM W VT-JST
P800A	23103840	FERRITE CORE, TFE1013
⚠ P801	23372117	POWER CORD, U/C 125V10A HSV 5 CMC-02P 5
P802	23368249	POWER CORD, 2P 11.88MM VH-JST
P805	23164965	CONNECTOR, PLUG 4P, W-P3504-#02
P811A	23368274	PLUG, 2P 3.96MM VH-JST VH
P891	23367068	CONNECTOR, PLUG 8P, 2.5MM G JST-EH B8B-EH-F1-TV4
P901	23368577	CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4
P902A	23164563	CONNECTOR, PLUG 3P
P903	23368578	CONNECTOR, PLUG 4P, 2.5MM G JST-EH, B4B-EH-F1-TV4
P906	23367070	PLUG , NP 2.5MM G JST-EH B10B-EH-F1A
P907	23367072	CONNECTOR, PLUG, NP 2.5MM G JST-EH, B12B-EH-F1A
PA01	23713240	CONNECTOR, 15FE-BT-VK-N JST 15FE-BT-VK-N
PB22	23368578	CONNECTOR, PLUG 4P, 2.5MM G JST-EH, B4B-EH-F1-TV4
PB501	23365772	JACK, EARPHONE, HSJ1406-01-020
PB502	23365772	JACK, EARPHONE, HSJ1406-01-020
PB503	23368584	CONNECTOR, PLUG, 3P2.5MM W EH-JST S3B-EH
PB51	23368577	CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4
PC01	23368579	CONNECTOR, PLUG 5P, 2.5MM G JST-EH, B5B-EH-F1-TV4
PE05	23367069	CONNECTOR, PLUG, NP 2.5MM G JST-EH, B9B-EH-F1A
PE06	23367071	CONNECTOR, PLUG, NP 2.5MM G JST-EH, B11B-EH-F1A
PE55A	23368577	CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4
PF01	23368581	CONNECTOR, PLUG 7P, 2.5MM G JST-EH B7B-EH-F1-TV4
PF02	23368577	CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4
PJ60	23368579	CONNECTOR, PLUG 5P, 2.5MM G JST-EH, B5B-EH-F1-TV4
PJ61	23367071	CONNECTOR, PLUG, NP 2.5MM G JST-EH, B11B-EH-F1A
PJ63	23368579	CONNECTOR, PLUG 5P, 2.5MM G JST-EH, B5B-EH-F1-TV4
PJ64	23368580	CONNECTOR, PLUG 6P, 2.5MM G JST-EH B6B-EH-F1-TV4
PV01	23023132	JACK, PIN 2S6P SMK LAP5030-0111GC
PV02	23023205	JACK, PIN 10P SMK KARI2 @U103
	23365819	JACK, 1S3P @UV03
PV03	23023211	JACK, PIN 7P SMK KARI04
PX18	23713270	CONNECTOR, 11FE-ST-VK-N 11FE-ST-VK-N
PX19	23713110	CONNECTOR, FE-ST-VK-N 17P JST FE-ST-VK-N 17PR
Q893B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q894B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
S701	23145430	SWITCH, PUSH, SKHHLMA010
⚠ S810	70145484	SWITCH, SPVF11
SK01 #1	23405384	OPTICALENGINE, PJ-TB25-46S (Ind.SK03-SK08)
#2	23405385	OPTICALENGINE, PJ-TB25-52S (Ind.SK03-SK08)
#3	23405386	OPTICALENGINE, PJ-TB25-62S (Ind.SK03-SK08)
SK02	23587201	SERVICE KIT, SHP66 LAMP UNIT SHP66 LAMP UNIT
SK03	23122468	POWER UNIT, RPB-4434ZA RPB-4434ZA
SK04	23762354	PC BOARD ASSY, SENSOR UNIT PD1823
SK05	23762355	PC BOARD ASSY, MOTOR UNIT PD1824
SK06	23125920	FAN, D09A-12PS6 01B(K)
SK07	23125919	FAN, D07F-12SS18 01B(EX)
SK08	23144199	BREAKER, US-603UXTLQE-H
⚠ SR81	23146574	RELAY, DLS5D1-O(M) 0.15W
⚠ SR82	23146564	RELAY, DC12V, TV5, DG-3
⚠ UF02	23125924	DC FAN, D06A-12TM 05B(K)
W661	23351244	SPEAKER,SPBOX(L)8-OHM20WSPK-1455AM
W662	23351245	SPEAKER,SPBOX(R)8-OHM20WSPK-1456AM
X502	23153721	CERAMIC RESONATOR, 503KHZ
XC01	23153589	CRYSTAL RESONATOR, XTAL 12MHZ
XY501	23153961	CRYSTAL, 3.58MHZ
Z105	23103840	FERRITE CORE, TFE1013
ZC01	24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC02	24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC03	24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC04	24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC05	24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC06	24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC07	24019479	CHIP BLOCK, 1/32W 22 OHM J X-8

Location No.		Parts No.	Description
ZC08		24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC09		24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC10		24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC11		24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC12		24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC13		24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC14		24019404	CHIP BLOCK, 1/16W P-8 10K OHM J
ZC15		24019404	CHIP BLOCK, 1/16W P-8 10K OHM J
ZC16		24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC17		24019404	CHIP BLOCK, 1/16W P-8 10K OHM J
ZC18		24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC19		24019404	CHIP BLOCK, 1/16W P-8 10K OHM J
ZC20	#1,#2	24019404	CHIP BLOCK, 1/16W P-8 10K OHM J
ZC21	#1,#2	24019404	CHIP BLOCK, 1/16W P-8 10K OHM J
PC BOARD ASSEMBLIES			
✱ E045Z		23788823	PC BOARD ASSY, IR BLASTER PU PD1289
✱ U101		23762703	PC BOARD ASSY, IF AUD ACIN PU PD1775C
✱ U103		23762702	PC BOARD ASSY, BACK AV PU PD1939A
✱ U802		23762704	PC BOARD ASSY, MAIN POWER PU PD1773B-1
✱ UA02		23762705	PC BOARD ASSY, REMORT SENSOR PU PD1773B-3
✱ UA03		23762706	PC BOARD ASSY, DOOR SW PU PD1773B-4
✱ UA06		23761341	PC BD ASSY, FRONT KEY PU PD1503
✱ UC01		23762334	PC BOARD ASSY, MULTICARD PU PD1821A
✱ UD02	#1	23148141	PC BOARD ASSY DIGITAL, 46HM94 DSB-SHU153C
✱	#2	23148136	PC BOARD ASSY DIGITAL, 52HM94 DSB-SHU153A
✱	#3	23148140	PC BOARD ASSY DIGITAL, 62HM94 DSB-SHU153B
✱ UE01		23762333	PC BOARD ASSY, SUB POWER PU PD1820A
✱ UF01		23762779	PC BOARD ASSY, FAN UNIT PU PD1953A
✱ UV03		23762707	PC BOARD ASSY, FRONT AV PU PD1773B-2
TUNER			
⚠ H001		23321495	TUNER, US864M IIC PH 5V PANA ENV56DF3G3F
ACCESSORIES			
A701	#1	23067799	CARTON, CARTON 46HM94
	#2	23067800	CARTON, CARTON 52HM94
	#3	23067802	CARTON, CARTON 62HM94
A703	#1	23946773	PACKING, TOP PACKING
	#2	23946771	PACKING, TOP PACKING
	#3	23946772	PACKING, TOP PACKING
A708	#1,#2	23946768	PACKING, BOTTOM PACKING
	#3	23946769	PACKING, BOTTOM PACKING
A709	#1	23067696	CARTON, BASE TRAY
	#2	23067694	CARTON, BASE TRAY
	#3	23067695	CARTON, BASE TRAY
A710	#1	23946776	PACKING, SUPPORT POST
	#2	23946774	PACKING, SUPPORT POST
	#3	23946775	PACKING, SUPPORT POST
⚠ K912		23306562	REMOCON HAND UNIT IR, DTVUSA CT-90216
K913		23306531	REMOCON IR, BLASTER GLINK VTR CONT
⚠ Y101E		23566511	OWNERS MANUAL, ENGLISH 52HM94 ENG
⚠ Y101F		23566512	OWNERS MANUAL, FRENCH 52HM94 FRE
CABINET PARTS			
⚠ A025		23532769	COVER, LAMP TUNNEL PURCHASE ASSY
⚠ A026		23428292	DOOR, DOOR LAMP PURCHASE ASSY
⚠ A101		23532766	COVER, BASE PURCHASE ASSY
⚠ A201	#1	23532777	COVER, BEZEL,PURCHASE ASSEY
⚠	#2	23532767	COVER, BEZEL PURCHASE ASSY
⚠	#3	23532781	COVER, BEZEL PURCHASE ASSEY
A204	#1	23532764	COVER, BACK COVER
	#2	23532684	COVER, BACK COVER
	#3	23532763	COVER, BACK COVER

Location No.		Parts No.	Description
⚠ A205	#1	23532783	COVER, BACKCOVER PURCHASE ASSY
⚠	#2	23532782	COVER, BACKCOVER PURCHASE ASSY
⚠	#3	23532784	COVER, BACKCOVER PURCHASE ASSY
A215		23940083	PIECE, PIECE ENCLOSURE,DLE
A220		23451976	PUSH CATCH, CLICK
⚠ A222	#1,#2	23532770	COVER, PEDESTAL PURCHASE ASSY
⚠	#3	23532885	COVER, PEDESTAL ASSY
A225		23940084	PIECE, STRIKER
A227	#1,#2	23450845	PANEL, PIECE TRIM TOUCH PAD 52HM94
	#3	23450846	PANEL, PIECE TRIM TOUCH PAD 62HM94
A231	#3	23940100	PIECE, PIECE SIDE RIGHT
A232	#3	23940099	PIECE, PIECE SIDE LEFT
A271	#1	23405378	OPTICAL ENGINE, PJ-TB25-46 (Incl. SK02-SK08)
	#2	23405372	OPTICAL ENGINE, PJ-TB25-52 (Incl. SK02-SK08)
	#3	23405379	OPTICAL ENGINE, PJ-TB25-62 (Incl. SK02-SK08)
A278		23084267	BRACKET, SPEED CLIP
A305		23717197	SCREW, THUMB SCREW
A306		23717198	SCREW, THUMB SCREW RETAINER
A333		23532895	COVER, AV MOUNT PURCHASE
⚠ A401		23532768	COVER, REAR COVER PURCHASE ASSY
A421		23532738	COVER, REAR COVER,DLE
A422		23084265	BRACKET, VENT, REAR DLE
A516		23717192	SCREW, SCREW, AV BOARD
A721		23943628	PLYETHLENE COVERING 46GM88T
K501	#1	23311074	SCREEN, 46K4M LENTICULAR SHEET
	#2	23311071	SCREEN, 52K4ML LENTICULAR SHEET
	#3	23311080	SCREEN, 62K4M LENTICULAR SHEET
K502	#1	23311075	SCREEN, 46K4M FRESNEL SHEET
	#2	23311072	SCREEN, 52K4M FRESNEL SHEET
	#3	23311081	SCREEN, 62K4MF FRESNEL SHEET
K601	#1	23405382	MIRROR, 46C4M3 1047/503*536*3
	#2	23405371	MIRROR, 52C4M3 1197/578*612*3
	#3	23405383	MIRROR, 62C4M3 1426/695*725*3
Y102		23589650	SHEET, IMPORTANT NOTES

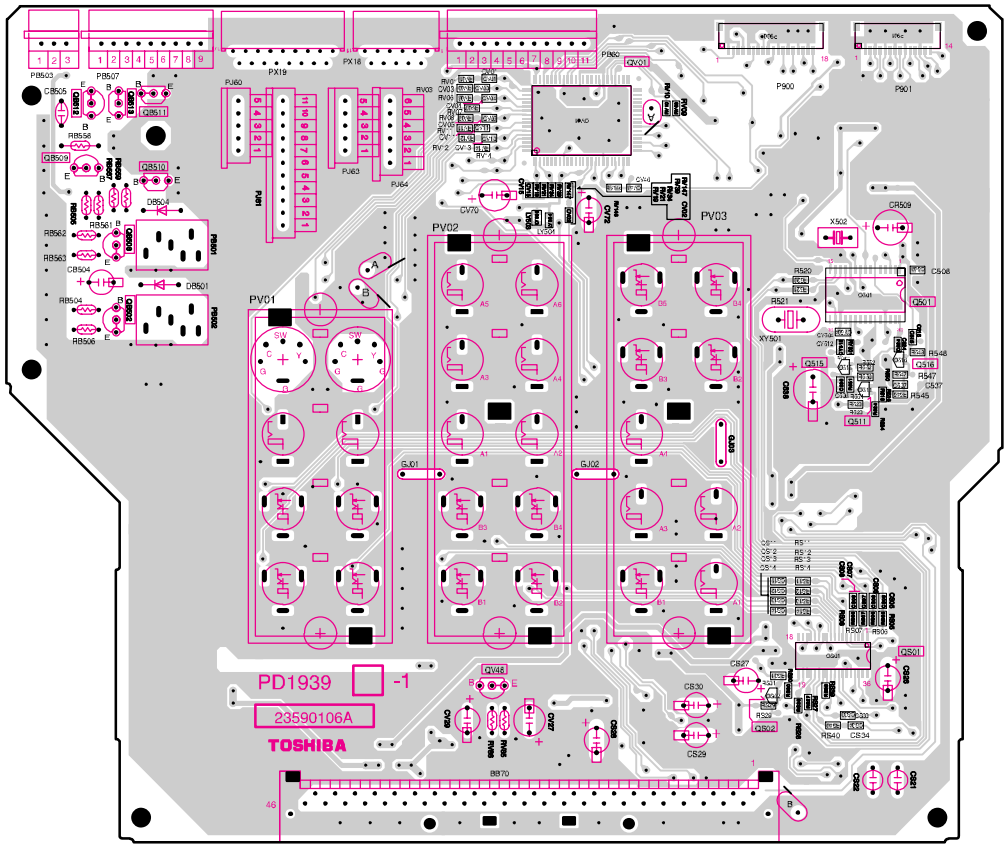
BACK AV BOARD PD1939A (U103)

BOTTOM (FOIL) SIDE



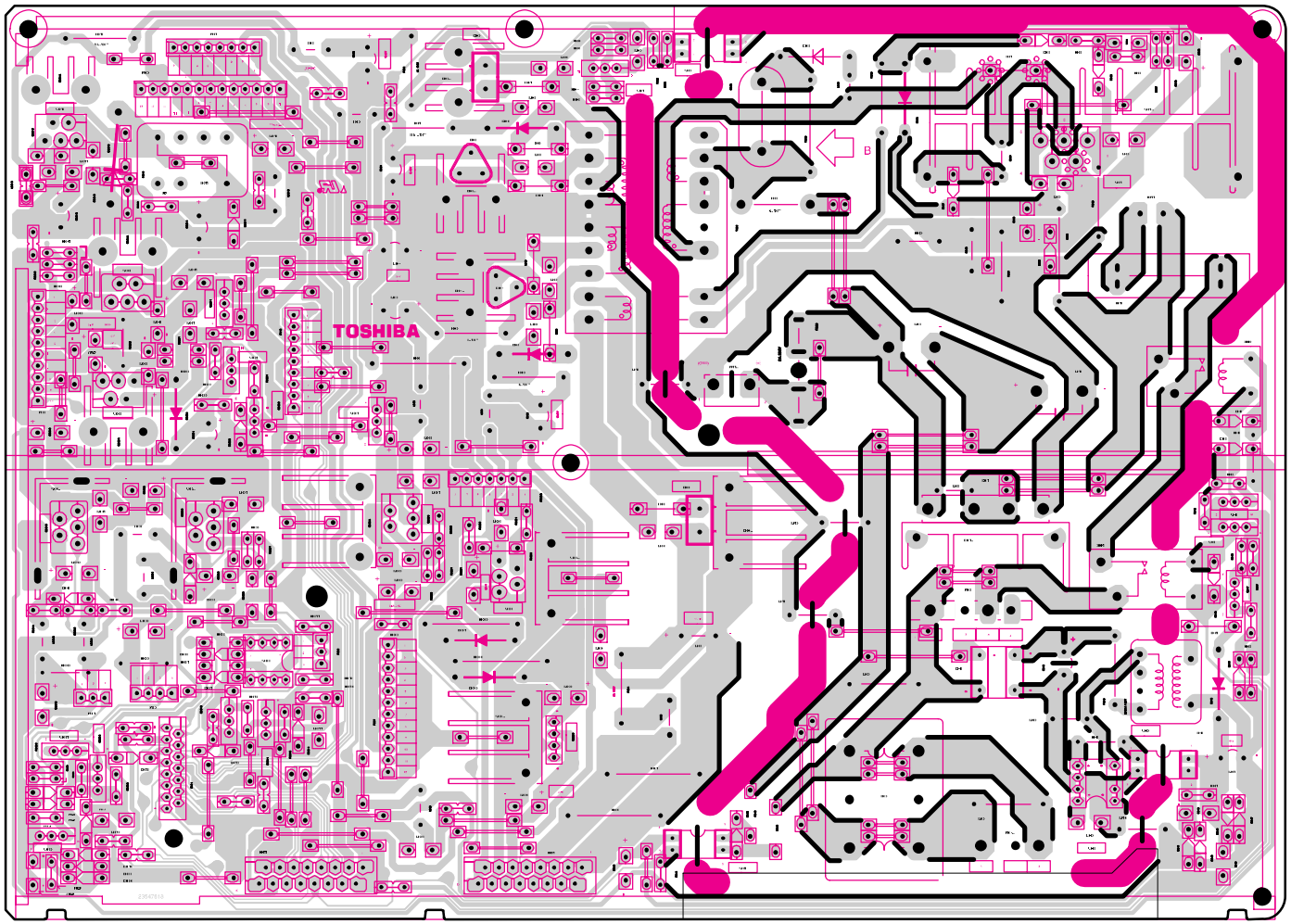
BACK AV BOARD PD1939A (U103)

TOP (COMPONENT) SIDE



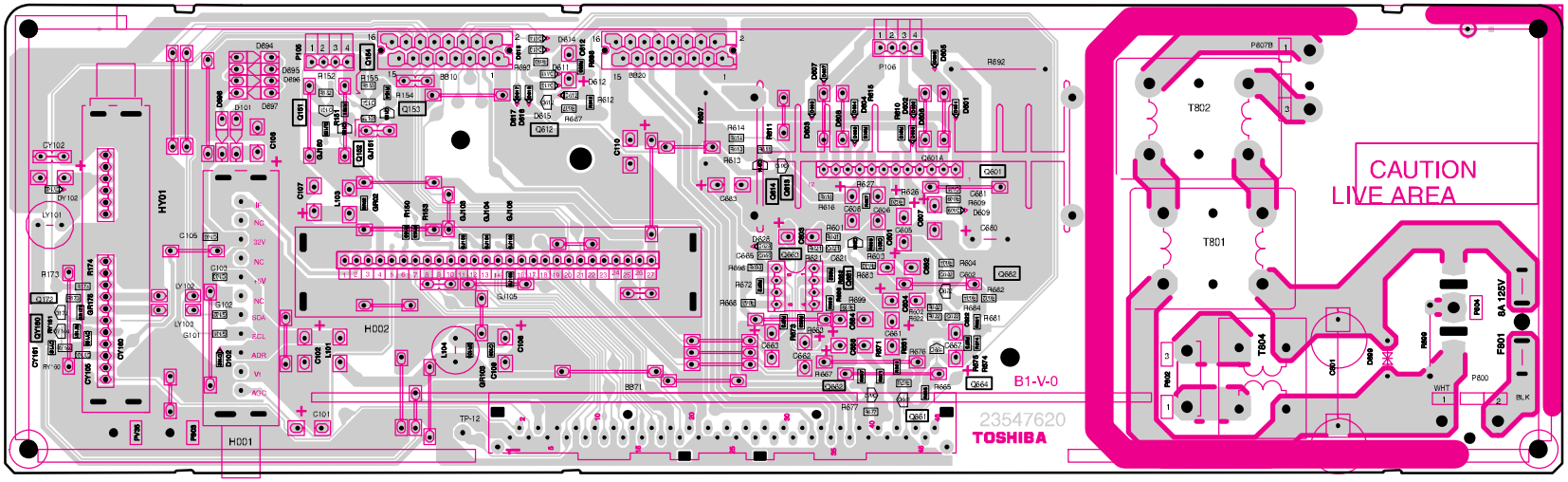
MAIN POWER BOARD PD1773B-1 (U802)

BOTTOM (FOIL) SIDE



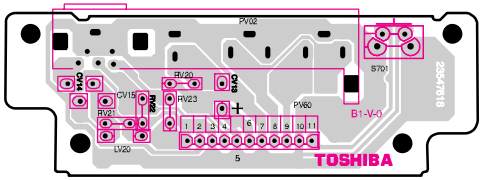
IF AUDIO AC IN BOARD PD1775C (U101)

BOTTOM (FOIL) SIDE



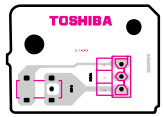
FRONT AV BOARD PD1773B-2 (UV03)

BOTTOM (FOIL) SIDE



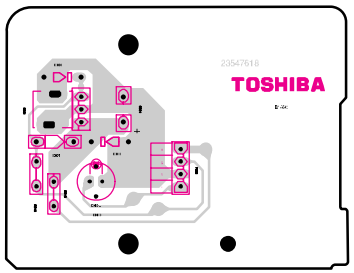
DOOR SWITCH BOARD PD1773B-4 (UA03)

BOTTOM (FOIL) SIDE



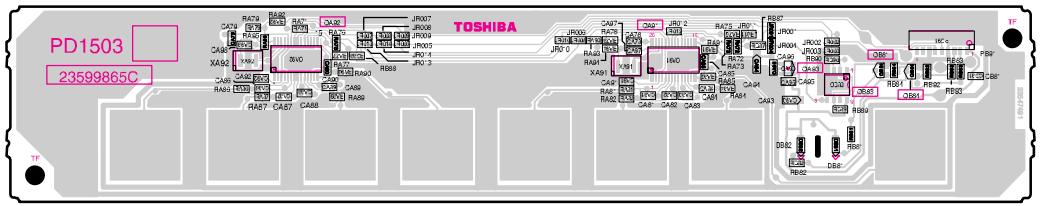
REMOTE SENSOR BOARD PD1773B-3 (UA02)

BOTTOM (FOIL) SIDE



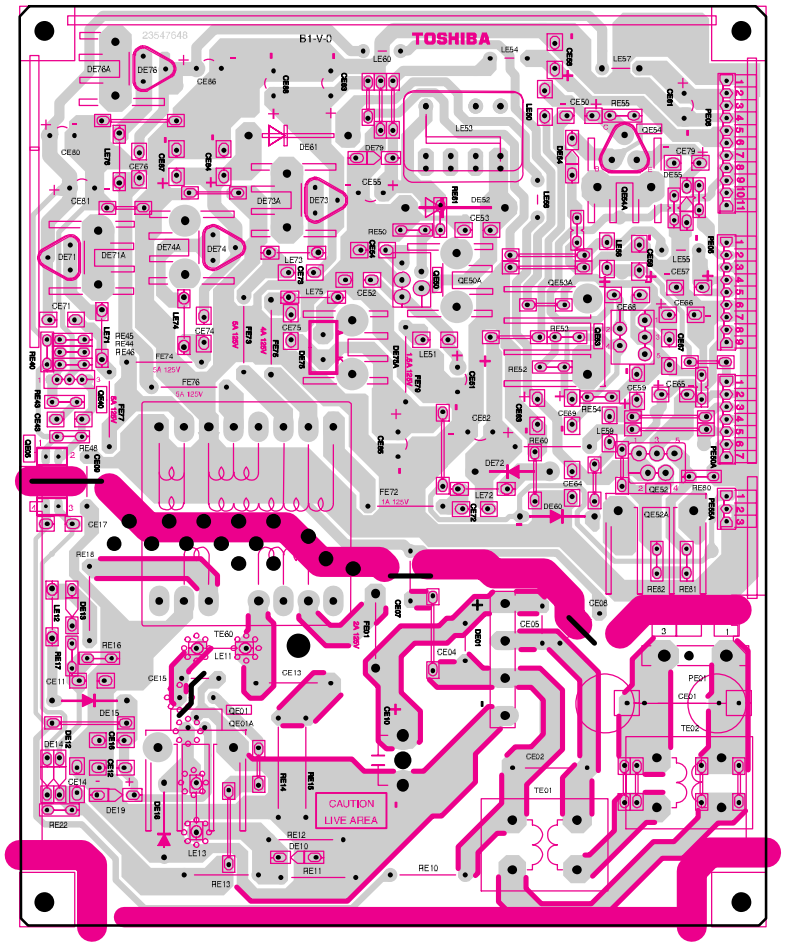
FRONT KEY BOARD PD1503 (UA06)

BOTTOM (FOIL) SIDE



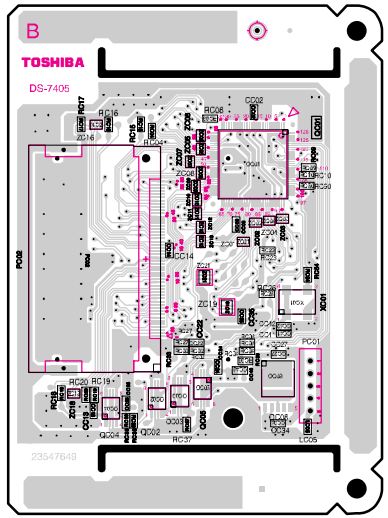
SUB POWER BOARD PD1820A (UE01)

BOTTOM (FOIL) SIDE



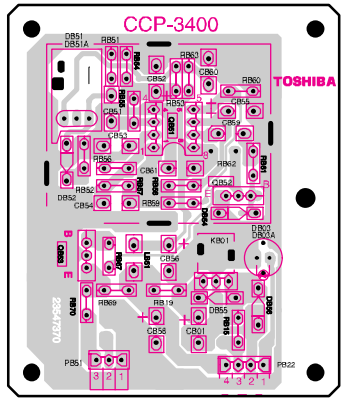
MULTI CARD BOARD PD1821A (UC01)

BOTTOM (FOIL) SIDE



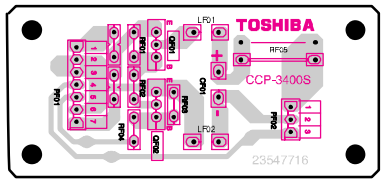
IR BLASTER BOARD PD1289 (E045Z)

BOTTOM (FOIL) SIDE



FAN UNIT BOARD PD1953A (UF01)

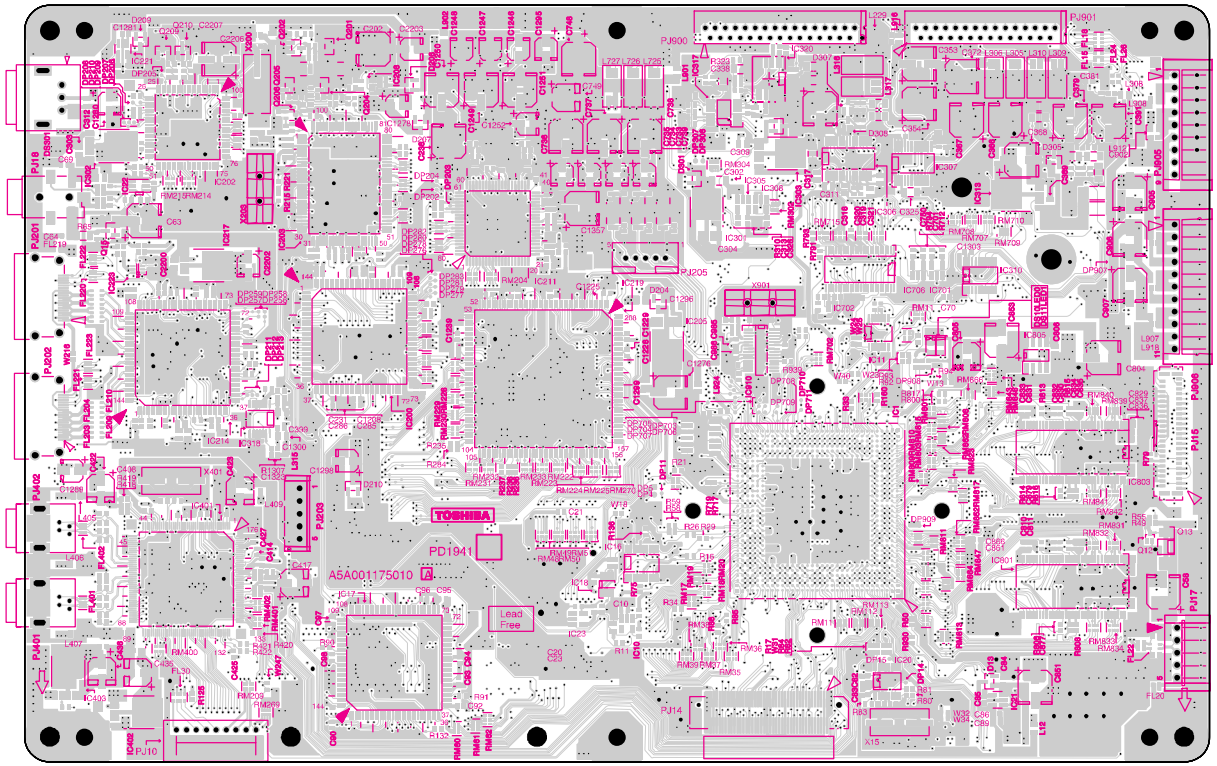
BOTTOM (FOIL) SIDE



OPSS SCALER BOARD (46HM94:SHU153C 52HM94:SHU153A 62HM94:SHU153B) (UD02)

SEINE_PJTV (PD1941)

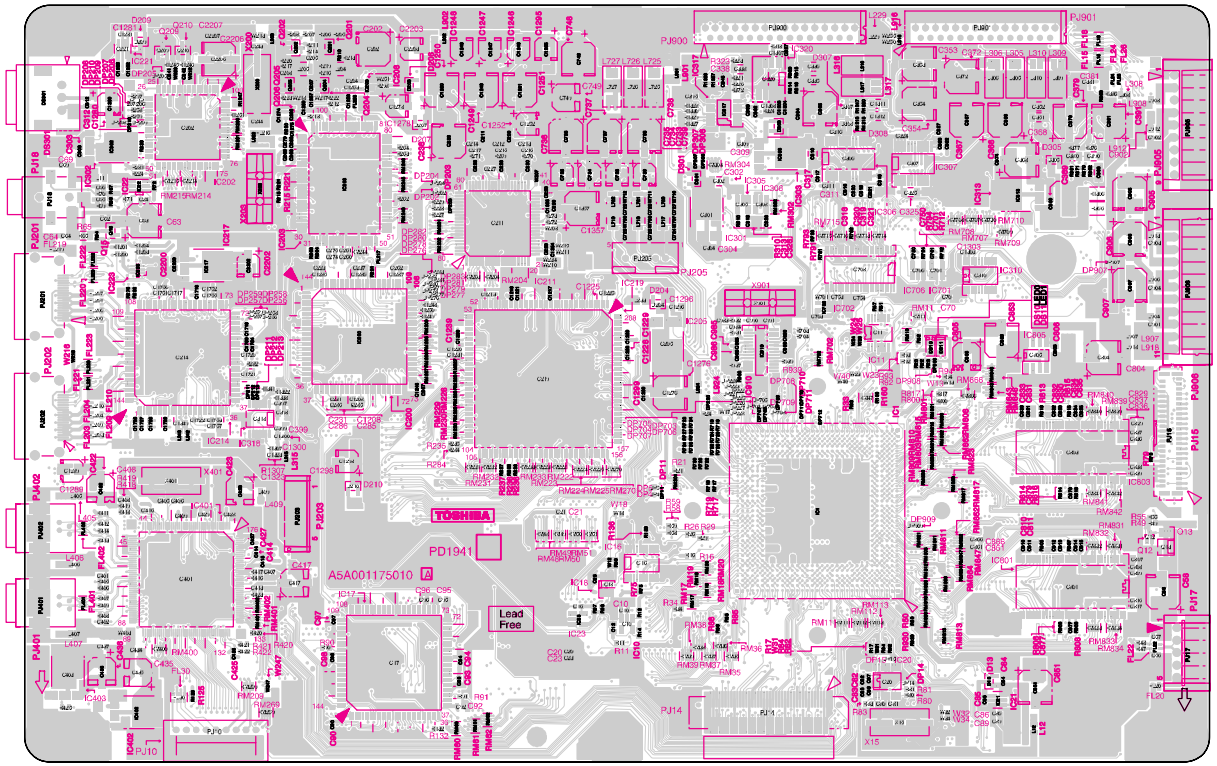
BOTTOM (FOIL) SIDE



OPSS SCALER BOARD (46HM94:SHU153C 52HM94:SHU153A 62HM94:SHU153B) (UD02)

SEINE_PJTV (PD1941)

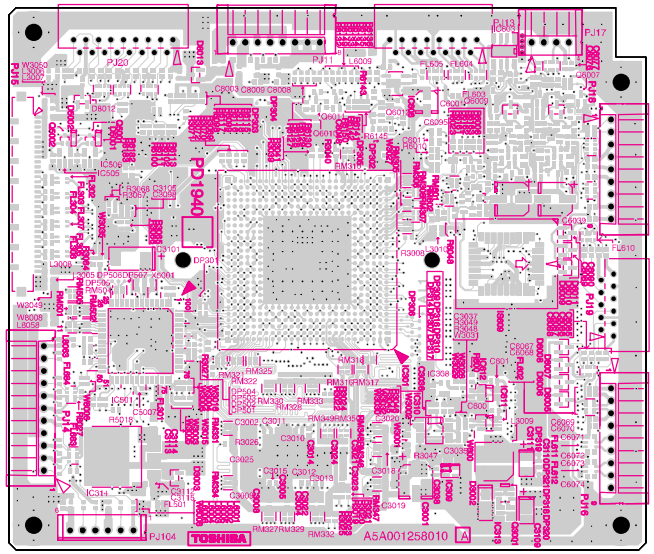
TOP (COMPONENT) SIDE



OPSS SCALER BOARD (46HM94:SHU153C 52HM94:SHU153A 62HM94:SHU153B) (UD02)

DIGITAL (PD1940)

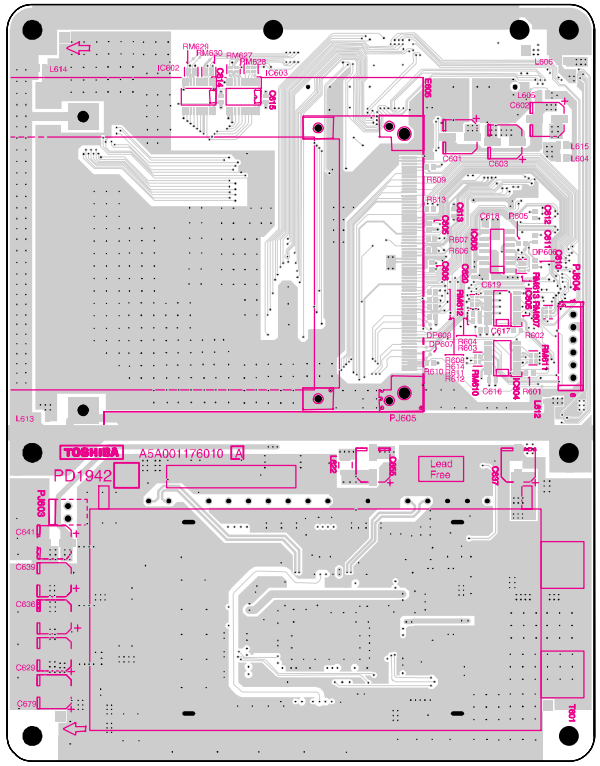
TOP (COMPONENT) SIDE



OPSS SCALER BOARD (46HM94:SHU153C 52HM94:SHU153A 62HM94:SHU153B) (UD02)

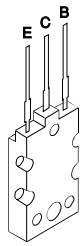
POD (PD1942)

TOP (COMPONENT) SIDE

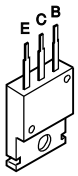


TERMINAL VIEW OF TRANSISTORS

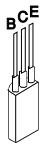
① 2SC5144
2SC5859



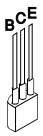
② 2SC3852
2SD1763A
2SC1569
2SC4544
2SA1788
2SA1306
2SA1186A



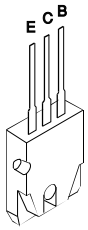
③ 2SC752GTM
2SC2482
2SC2655
2SC4721P



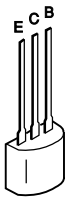
④ 2SC752
2SA562TM
2SA1015
2SC1815
2SC2878
2SC1740S
2SC2120
2SA9335



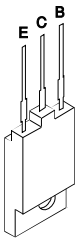
⑤ 2SA1788



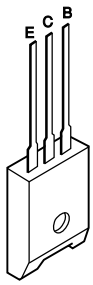
⑥ RN2203
RN2201
RN2004
RN1203
RN1204
RN2204
RN1205
RN1202
RN1201



⑦ 2SD1554
2SD2253
2SD1556
2SD2553
2SC5143



⑧ ON4409



SCHEMATIC DIAGRAM

MODEL : 46HM94/52HM94/62HM94

WARNING : BEFORE SERVICING THIS CHASSIS, READ THE "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on the MANUAL for this model. Do not degrade the safety of the receiver through improper servicing.

NOTE:

1. RESISTOR Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.
   1/2R = Metal or Metal oxide of 1/2 watt 1/2S = Carbon compsistion of 1/2 watt
   1RF = Fuse resistor of 1 watt 10W = Cement of 10 watt
   K = ±10% G = ±2% F = ±1%
2. CAPACITOR Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in μF, and the values more than 1 in pF.
   All capacitors are ceramic 50V, unless otherwise noted as the following marks.
   ⊣|⊢ Electolytic capacitor ⊣|⊢ Mylar capacitor
3. The parts indicated with "⚠" have special characteristics, and should be replaced with identical parts only.
4. Voltages read with DIGITAL MULTI-METER from point indicated to chassing ground, using a color bar signal with all controls at normal, line voltage at 220 volts.
5. Waveforms are taken receiving color bar signal with enough sensitivity.
6. Voltage reading shown are nominal values and may vary ±20% except H.V.

■ SCHEMATIC DIAGRAM STRUCTURE

BACK_AV
- (1/6) [SHEET-1/6] 1/125
- (AUDIO_SELECT) [SHEET-2/6] 2/125
- (VIDEO_SELECT1) [SHEET-3/6] 3/125
- (VIDEO_SELECT2) [SHEET-4/6] 4/125
- (IR_BLASTER) [SHEET-5/6] 5/125
- (WRIGHT_CONNECTION) [SHEET-6/6] 6/125

FAN_CONTROL 7/125

FRONT_AV 8/125

FRONT_KEY
- (TOUCH_CONTROL_PANEL) 9/125

IF_AUDIO
- (IF/AUDIO) [SHEET-1/4] 10/125
- (IF/TIF) [SHEET-2/4] 11/125
- (SOUND) [SHEET-3/4] 12/125
- (AIN) [SHEET-4/4] 13/125

IR_BLA_OUT 14/125

MAIN_POWER 15/125

MULTI_CARD
- (1/4) [SHEET-1/4] 16/125
- (2/4) [SHEET-2/4] 17/125
- (3/4) [SHEET-3/4] 18/125
- (4/4) [SHEET-4/4] 19/125

SUB_POWER
- (1/2) [SHEET-1/2] 20/125
- (2/2) [SHEET-2/2] 21/125

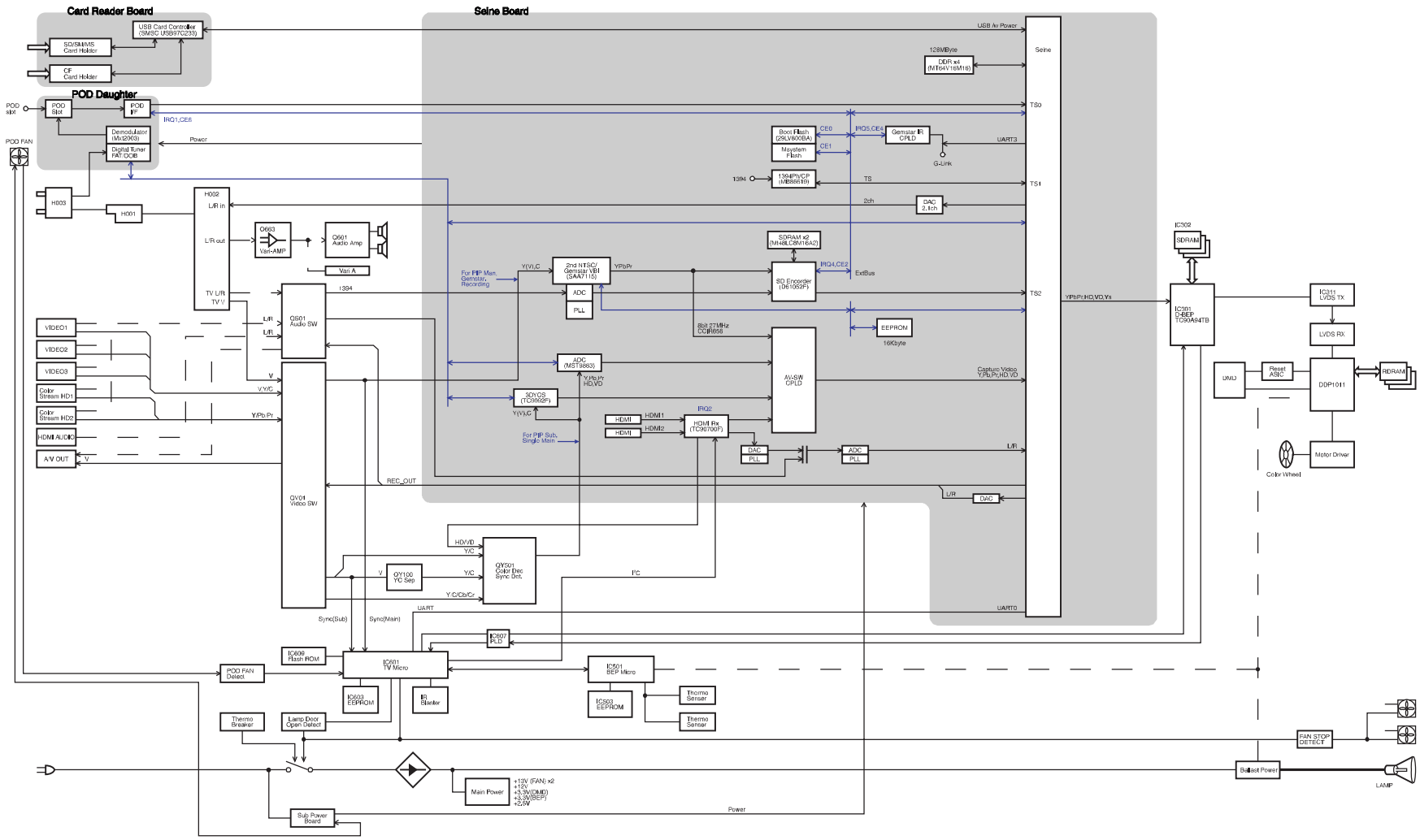
DIGITAL
- (SCALER_INPUT) [SHEET-300] 22/125
- (CAPTURE_INPUT) [SHEET-301] 23/125
- (DDR_SDRAM) [SHEET-302] 24/125
- (SCALER_PLL_US_&_EUROPE) [SHEET-304] 25/125
- (OSD_FOR_NORTH_AMERICA) [SHEET-305] 26/125
- (IIC) [SHEET-306] 27/125
- (SCALER_POWER) [SHEET-307] 28/125
- (LVDS_OUTPUT) [SHEET-308] 29/125
- (LVDS_OUT_CONNECTOR) [SHEET-309] 30/125
- (DC/DCONVERTER) [SHEET-310] 31/125
- (SUB_MICOM_1) [SHEET-500] 32/125
- (SUB_MICOM_2) [SHEET-501] 33/125
- (SUB_MICOM_3) [SHEET-502] 34/125
- (OSD_MICON_4/4) [SHEET-503] 35/125
- (MICON_1/3) [SHEET-600] 36/125
- (MICON_2/3) [SHEET-601] 37/125
- (MICON_3/3) [SHEET-602] 38/125
- (TV_MICON_RESET_I&_FLASH) [SHEET-603] 39/125
- (SYNDETECT) [SHEET-604] 40/125
- (PLD_US_OSD_SYNGENERATOR) [SHEET-605] 41/125
- (IR_BROSTER) [SHEET-606] 42/125
- (CONNECTOR) [SHEET-607] 43/125
- (POWER_CONNECTOR) [SHEET-800] 44/125
- (CONNECTOR_OLE_I/F) [SHEET-803] 45/125
- (SERVICE_CONECTOR_BEP) [SHEET-804] 46/125

SEINE_PJTV
- (RESET_CLOCK_IRG) [SHEET-1] 47/125
- (SLOW_BUS) [SHEET-2] 48/125
- (SLOW_BUS_ADDRESS_REGISTER) [SHEET-3] 49/125
- (SEINE_12C/UART) [SHEET-4] 50/125
- (SEINE_PIO/USB) [SHEET-5] 51/125
- (M-SYSTEM_NAND_FLASHROM) [SHEET-6] 52/125
- (ROM/FLASH) [SHEET-7] 53/125
- (GUNK_PWM-PLD) [SHEET-8] 54/125
- (GLINK_IR-OUT) [SHEET-9] 55/125
- (CLOCK_GENERATOR) [SHEET-10] 56/125
- (TV_MICON_I/F) [SHEET-11] 57/125
- (HOST_BUS_CONNECTOR) [SHEET-13] 58/125
- (SEINE_PCI_BUS) [SHEET-14] 59/125
- (SEINE_VDD/VSS) [SHEET-15] 60/125
- (EJTAG_CONNECTOR) [SHEET-16] 61/125
- (SEINE_TS_I/F) [SHEET-110] 62/125

SEINE_PJTV
- (SEINE_CAPTURE_IN) [SHEET-200] 63/125
- (CPLD-VIDEO_SW) [SHEET-202] 64/125
- (VIDEO_LPF_VBL) [SHEET-203] 65/125
- (VIDEO_LPF_VCD) [SHEET-204] 66/125
- (VIDEO_IN-NTSDECORDER1) [SHEET-205] 67/125
- (VIDEO_IN-NTSDECORDER2) [SHEET-206] 68/125
- (VIDEO_IN-MPEG_ENC1) [SHEET-208] 69/125
- (VIDEO_IN-MPEG_ENC2) [SHEET-209] 70/125
- (VIDEO_IN-MPEG_ENC3) [SHEET-210] 71/125
- (VIDEO_IN-MPEG_ENC4) [SHEET-211] 72/125
- (MPEG_AUDIO_PLL) [SHEET-212] 73/125
- (VIDEO_IN-CAPTURE_AMP) [SHEET-220] 74/125
- (VIDEO_IN-CAPTURE_LPF) [SHEET-221] 75/125
- (VIDEO_IN-3CH_ABC) [SHEET-222] 76/125
- (VIDEO_IN-CAPTURE_HD/VD) [SHEET-223] 77/125
- (VIDEO_IN-3D_Y/C) [SHEET-224] 78/125
- (VIDEO_IN-HDMI-LINK/12C) [SHEET-230] 79/125
- (VIDEO_IN-HDMI_P2-VIDEO/AUDIO) [SHEET-231] 80/125
- (VIDEO_IN-HDMI_P3-PWR/AUDIO) [SHEET-232] 81/125
- (HDMI_AUDIO_PLL) [SHEET-233] 82/125
- (VIDEO_IN-VIDEO_POWER) [SHEET-250] 83/125
- (AUDIO_POWER) [SHEET-300] 84/125
- (SEINE_AUDIO_I/F) [SHEET-301] 85/125
- (AUDIO_ADC/DAC) [SHEET-302] 86/125
- (AUDIO_PLL/DAC) [SHEET-303] 87/125
- (AUDIO_DAC-01CH_OUT) [SHEET-304] 88/125
- (AUDIO_TV-IN/OUT) [SHEET-305] 89/125
- (AUDIO_VTR_OUT) [SHEET-306] 90/125
- (AUDIO_01CH_OUT_MIX) [SHEET-307] 91/125
- (AUDIO_CONT) [SHEET-308] 92/125
- (HDMI_AUDIO_DAC) [SHEET-310] 93/125
- (HDMI_AUDIO_OUT) [SHEET-311] 94/125
- (MPEG_AUDIO_IN) [SHEET-320] 95/125
- (MPEG_AUDIO_ADC) [SHEET-321] 96/125
- (IEEE1394_1) [SHEET-400] 97/125
- (IEEE1394_2) [SHEET-401] 98/125
- (IEEE1394_CPLD) [SHEET-402] 99/125
- (VIDEO_OUT-SEINE_DIGITAL_OUT) [SHEET-700] 100/125
- (VIDEO_OUT-SYNOUT) [SHEET-701] 101/125
- (VIDEO_OUT-SEINE_BEP_IF) [SHEET-702] 102/125
- (VIDEO_OUT-SEINE_BEP_IF-2) [SHEET-703] 103/125
- (VIDEO_OUT-SEINE_BEP_IF-3) [SHEET-704] 104/125
- (VIDEO_OUT-SEINE_DAOUT) [SHEET-710] 105/125
- (VIDEO_OUT-HD_OUT_LPF) [SHEET-711] 106/125
- (VIDEO_OUT-HD_OUT_DRIVER) [SHEET-712] 107/125
- (VIDEO_OUT-DOWN_CON_OUT_DRIVER) [SHEET-715] 108/125
- (DDR_SDRAM_I/F) [SHEET-801] 109/125
- (DDR_SDRAM_1) [SHEET-802] 110/125
- (DDR_SDRAM_2) [SHEET-803] 111/125
- (DDR_SDRAM_TERMINATOR) [SHEET-804] 112/125
- (DDR_SDRAM_DDR_POWER/VREF/VTT) [SHEET-805] 113/125
- (VCXO) [SHEET950] 114/125
- (TERMINAL-SIGNAL_CONNECTOR) [SHEET-960] 115/125
- (TERMINAL-POWER_CONNECTOR) [SHEET-961] 116/125

POD
- (POD_CONNECTOR) [SHEET-1] 117/125
- (POD_IF-CPLD_XILINK) [SHEET-3] 118/125
- (POD_IF-SLOWBUS) [SHEET-4] 119/125
- (POD_IF-POWER) [SHEET-5] 120/125
- (POD_IF) [SHEET-6] 121/125
- (DB_POD_IF) [SHEET-8] 122/125
- (TUNER_DEMO) [SHEET-200] 123/125
- (TUNER_DEMO-NXT2003_POWER) [SHEET-201] 124/125
- (TUNER_DEMO-NXT2003) [SHEET-202] 125/125

CIRCUIT BLOCK DIAGRAM



TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN

TOSHIBA

FILE NO. 020-200420
REVISION 3

CIRCUIT DIAGRAMS

Projection Television

46HM94
52HM94
62HM94

DOCUMENT CREATED IN JAPAN, Jan., 2005

SCHEMATIC DIAGRAM

MODEL : 46HM94/52HM94/62HM94

WARNING : BEFORE SERVICING THIS CHASSIS, READ THE “SAFETY PRECAUTION” AND “PRODUCT SAFETY NOTICE” ON THE MANUAL FOR THIS MODEL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on the MANUAL for this model. Do not degrade the safety of the receiver through improper servicing.

NOTE:

1. RESISTOR Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.
   1/2R = Metal or Metal oxide of 1/2 watt
   1/2S = Carbon compsistion of 1/2 watt
   1RF = Fuse resistor of 1 watt
   10W = Cement of 10 watt
   K = ±10% G = ±2% F = ±1%
2. CAPACITOR Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in μF, and the values more than 1 in pF.
   All capacitors are ceramic 50V, unless otherwise noted as the following marks.
   Electolytic capacitor
   Mylar capacitor
3. The parts indicated with "⚠" have special characteristics, and should be replaced with identical parts only.
4. Voltages read with DIGITAL MULTI-METER from point indicated to chassing ground, using a color bar signal with all controls at normal, line voltage at 220 volts.
5. Waveforms are taken receiving color bar signal with enough sensitivity.
6. Voltage reading shown are nominal values and may vary ±20% except H.V.

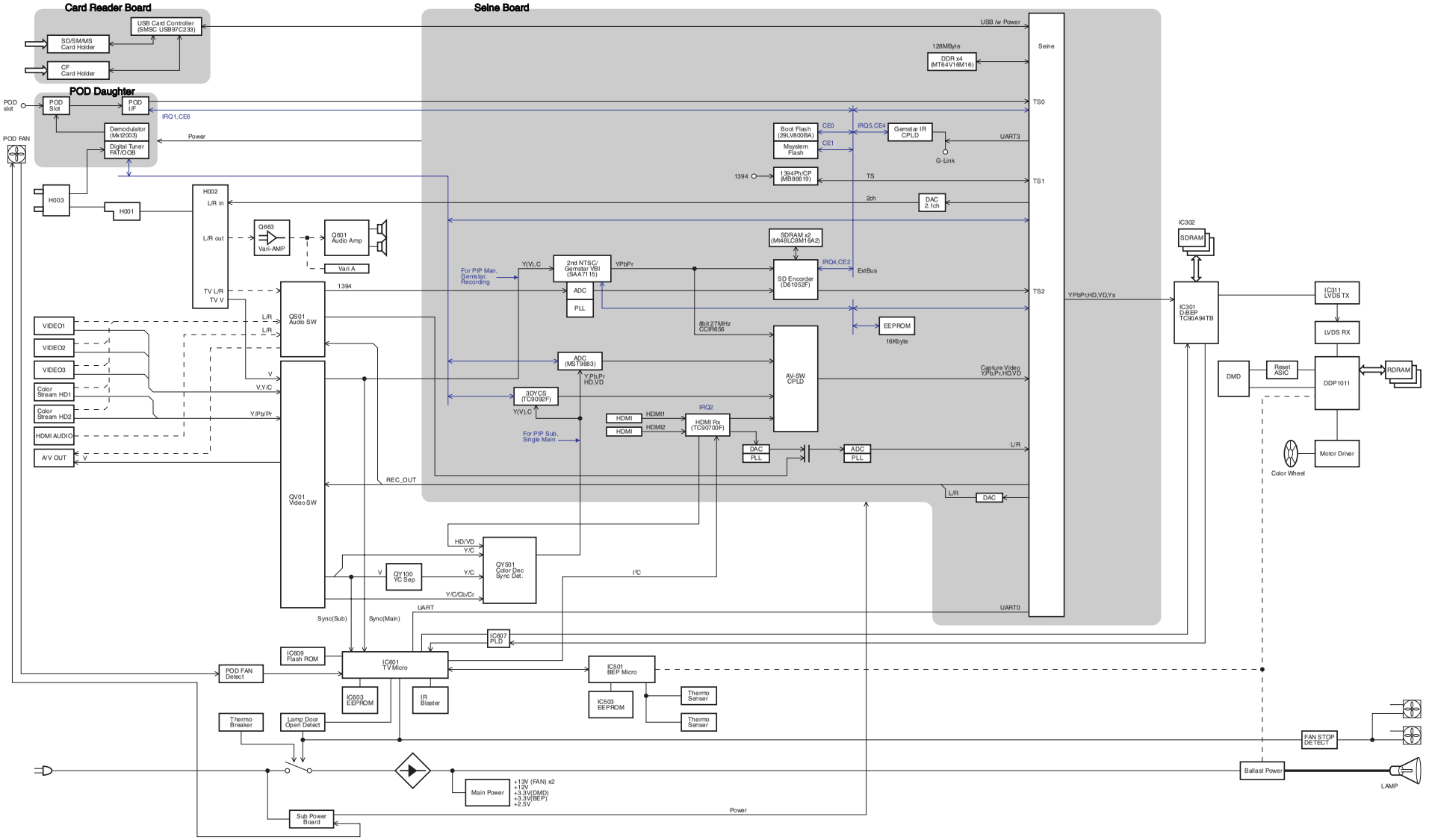
■ SCHEMATIC DIAGRAM STRUCTURE

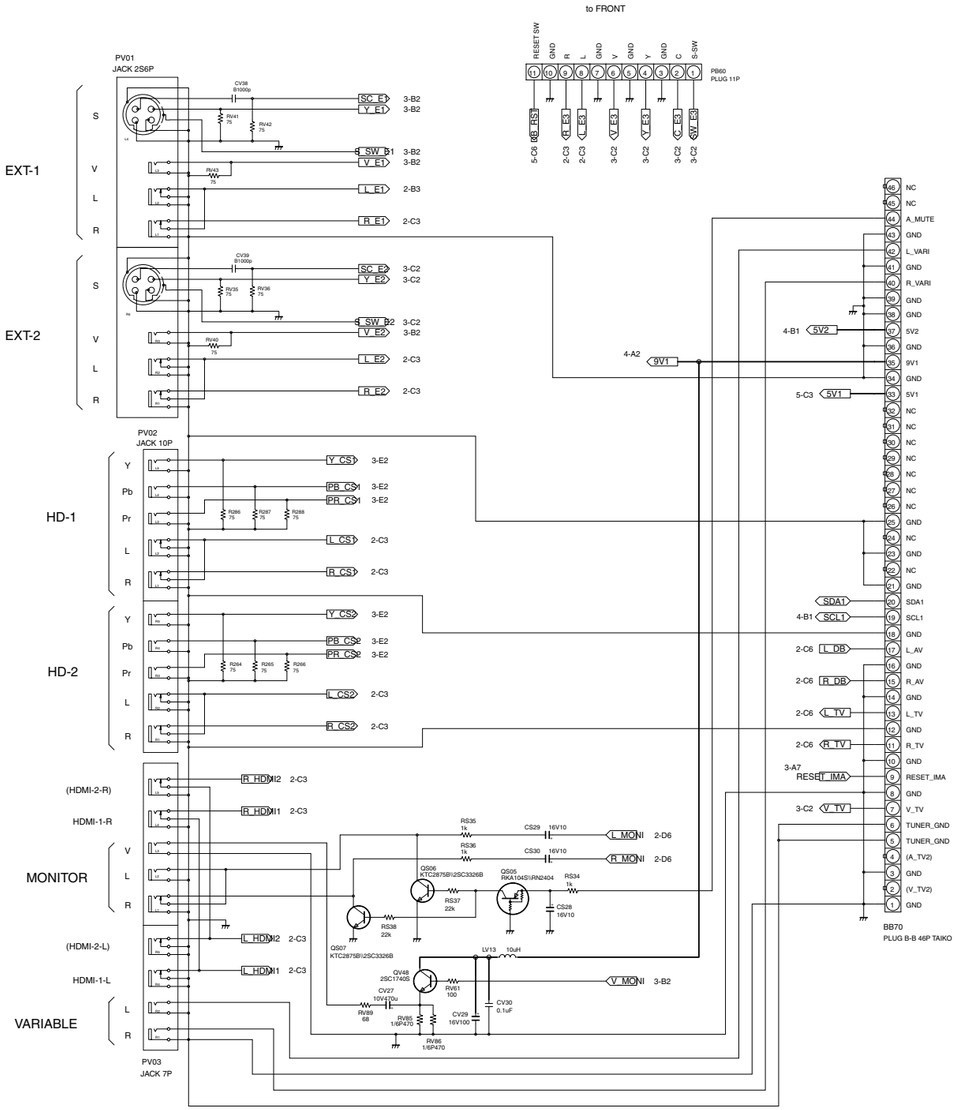
BACK_AV — (1/6) [SHEET-1/6] 1/125
(AUDIO_SELECT) [SHEET-2/6] 2/125
(VIDEO_SELECT1) [SHEET-3/6] 3/125
(VIDEO_SELECT2) [SHEET-4/6] 4/125
(IR_BLASTER) [SHEET-5/6] 5/125
(WRIGHT_CONNECTION) [SHEET-6/6] 6/125
FAN_CONTROL 7/125
FRONT_AV 8/125
FRONT_KEY — (TOUCH_CONTROL_PANEL) 9/125
IF_AUDIO — (IF/AUDIO) [SHEET-1/4] 10/125
(IF/TIF) [SHEET-2/4] 11/125
(SOUND) [SHEET-3/4] 12/125
(AIN) [SHEET-4/4] 13/125
IR_BLA_OUT 14/125
MAIN_POWER 15/125
MULTI_CARD — (1/4) [SHEET-1/4] 16/125
(2/4) [SHEET-2/4] 17/125
(3/4) [SHEET-3/4] 18/125
(4/4) [SHEET-4/4] 19/125
SUB_POWER — (1/2) [SHEET-1/2] 20/125
(2/2) [SHEET-2/2] 21/125
DIGITAL — (SCALER_INPUT) [SHEET-300] 22/125
(CAPTURE_INPUT) [SHEET-301] 23/125
(DDR_SDRAM) [SHEET-302] 24/125
(SCALER_PLL_US_&_EUROPE) [SHEET-304] 25/125
(OSD_FOR_NORTH_AMERICA) [SHEET-305] 26/125
(IIC) [SHEET-306] 27/125
(SCALER_POWER) [SHEET-307] 28/125
(LVDS_OUTPUT) [SHEET-308] 29/125
(LVDS_OUT_CONNECTOR) [SHEET-309] 30/125
(DC/DCONVERTER) [SHEET-310] 31/125
(SUB_MICOM_1) [SHEET-500] 32/125
(SUB_MICOM_2) [SHEET-501] 33/125
(SUB_MICOM_3) [SHEET-502] 34/125
(OSD_MICON_4/4) [SHEET-503] 35/125
(MICON_1/3) [SHEET-600] 36/125
(MICON_2/3) [SHEET-601] 37/125
(MICON_3/3) [SHEET-602] 38/125
(TV_MICON_RESET_I&_FLASH) [SHEET-603] 39/125
(SYNDETECT) [SHEET-604] 40/125
(PLD_US_OSD_SYNGENERATOR) [SHEET-605] 41/125
(IR_BROSTER) [SHEET-606] 42/125
(CONNECTOR) [SHEET-607] 43/125
(POWER_CONNECTOR) [SHEET-800] 44/125
(CONNECTOR_OLE_I/F) [SHEET-803] 45/125
(SERVICE_CONECTOR_BEP) [SHEET-804] 46/125
SEINE_PJTV — (RESET_CLOCK_IRG) [SHEET-1] 47/125
(SLOW_BUS) [SHEET-2] 48/125
(SLOW_BUS_ADDRESS_REGISTER) [SHEET-3] 49/125
(SEINE_12C/UART) [SHEET-4] 50/125
(SEINE_PIO/USB) [SHEET-5] 51/125
(M-SYSTEM_NAND_FLASHROM) [SHEET-6] 52/125
(ROM/FLASH) [SHEET-7] 53/125
(GUNK_PWM-PLD) [SHEET-8] 54/125
(GLINK_IR-OUT) [SHEET-9] 55/125
(CLOCK_GENERATOR) [SHEET-10] 56/125
(TV_MICON_I/F) [SHEET-11] 57/125
(HOST_BUS_CONNECTOR) [SHEET-13] 58/125
(SEINE_PCI_BUS) [SHEET-14] 59/125
(SEINE_VDD/VSS) [SHEET-15] 60/125
(EJTAG_CONNECTOR) [SHEET-16] 61/125
(SEINE_TS_I/F) [SHEET-110] 62/125

SEINE_PJTV
- (SEINE_CAPTURE_IN) [SHEET-200] 63/125
- (CPLD-VIDEO_SW) [SHEET-202] 64/125
- (VIDEO_LPF_VBL) [SHEET-203] 65/125
- (VIDEO_LPF_VCD) [SHEET-204] 66/125
- (VIDEO_IN-NTSDECORDER1) [SHEET-205] 67/125
- (VIDEO_IN-NTSDECORDER2) [SHEET-206] 68/125
- (VIDEO_IN-MPEG_ENC1) [SHEET-208] 69/125
- (VIDEO_IN-MPEG_ENC2) [SHEET-209] 70/125
- (VIDEO_IN-MPEG_ENC3) [SHEET-210] 71/125
- (VIDEO_IN-MPEG_ENC4) [SHEET-211] 72/125
- (MPEG_AUDIO_PLL) [SHEET-212] 73/125
- (VIDEO_IN-CAPTURE_AMP) [SHEET-220] 74/125
- (VIDEO_IN-CAPTURE_LPF) [SHEET-221] 75/125
- (VIDEO_IN-3CH_ABC) [SHEET-222] 76/125
- (VIDEO_IN-CAPTURE_HD/VD) [SHEET-223] 77/125
- (VIDEO_IN-3D_Y/C) [SHEET-224] 78/125
- (VIDEO_IN-HDMI-LINK/12C) [SHEET-230] 79/125
- (VIDEO_IN-HDMI_P2-VIDEO/AUDIO) [SHEET-231] 80/125
- (VIDEO_IN-HDMI_P3-PWR/AUDIO) [SHEET-232] 81/125
- (HDMI_AUDIO_PLL) [SHEET-233] 82/125
- (VIDEO_IN-VIDEO_POWER) [SHEET-250] 83/125
- (AUDIO_POWER) [SHEET-300] 84/125
- (SEINE_AUDIO_I/F) [SHEET-301] 85/125
- (AUDIO_ADC/DAC) [SHEET-302] 86/125
- (AUDIO_PLL/DAC) [SHEET-303] 87/125
- (AUDIO_DAC-01CH_OUT) [SHEET-304] 88/125
- (AUDIO_TV-IN/OUT) [SHEET-305] 89/125
- (AUDIO_VTR_OUT) [SHEET-306] 90/125
- (AUDIO_01CH_OUT_MIX) [SHEET-307] 91/125
- (AUDIO_CONT) [SHEET-308] 92/125
- (HDMI_AUDIO_DAC) [SHEET-310] 93/125
- (HDMI_AUDIO_OUT) [SHEET-311] 94/125
- (MPEG_AUDIO_IN) [SHEET-320] 95/125
- (MPEG_AUDIO_ADC) [SHEET-321] 96/125
- (IEEE1394_1) [SHEET-400] 97/125
- (IEEE1394_2) [SHEET-401] 98/125
- (IEEE1394_CPLD) [SHEET-402] 99/125
- (VIDEO_OUT-SEINE_DIGITAL_OUT) [SHEET-700] 100/125
- (VIDEO_OUT-SYNOUT) [SHEET-701] 101/125
- (VIDEO_OUT-SEINE_BEP_IF) [SHEET-702] 102/125
- (VIDEO_OUT-SEINE_BEP_IF-2) [SHEET-703] 103/125
- (VIDEO_OUT-SEINE_BEP_IF-3) [SHEET-704] 104/125
- (VIDEO_OUT-SEINE_DAOUT) [SHEET-710] 105/125
- (VIDEO_OUT-HD_OUT_LPF) [SHEET-711] 106/125
- (VIDEO_OUT-HD_OUT_DRIVER) [SHEET-712] 107/125
- (VIDEO_OUT-DOWN_CON_OUT_DRIVER) [SHEET-715] 108/125
- (DDR_SDRAM_I/F) [SHEET-801] 109/125
- (DDR_SDRAM_1) [SHEET-802] 110/125
- (DDR_SDRAM_2) [SHEET-803] 111/125
- (DDR_SDRAM_TERMINATOR) [SHEET-804] 112/125
- (DDR_SDRAM_DDR_POWER/VREF/VTT) [SHEET-805] 113/125
- (VCXO) [SHEET950] 114/125
- (TERMINAL-SIGNAL_CONNECTOR) [SHEET-960] 115/125
- (TERMINAL-POWER_CONNECTOR) [SHEET-961] 116/125

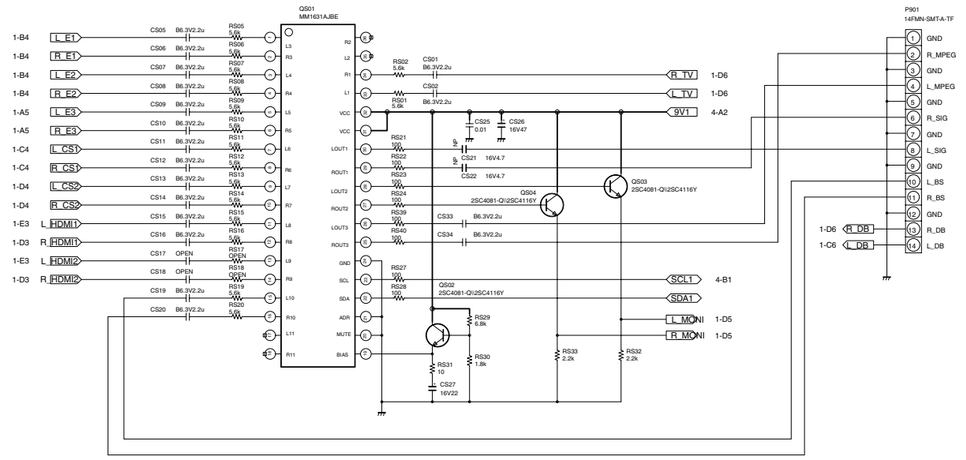
POD
- (POD_CONNECTOR) [SHEET-1] 117/125
- (POD_IF-CPLD_XILINK) [SHEET-3] 118/125
- (POD_IF-SLOWBUS) [SHEET-4] 119/125
- (POD_IF-POWER) [SHEET-5] 120/125
- (POD_IF) [SHEET-6] 121/125
- (DB_POD_IF) [SHEET-8] 122/125
- (TUNER_DEMO) [SHEET-200] 123/125
- (TUNER_DEMO-NXT2003_POWER) [SHEET-201] 124/125
- (TUNER_DEMO-NXT2003) [SHEET-202] 125/125

CIRCUIT BLOCK DIAGRAM

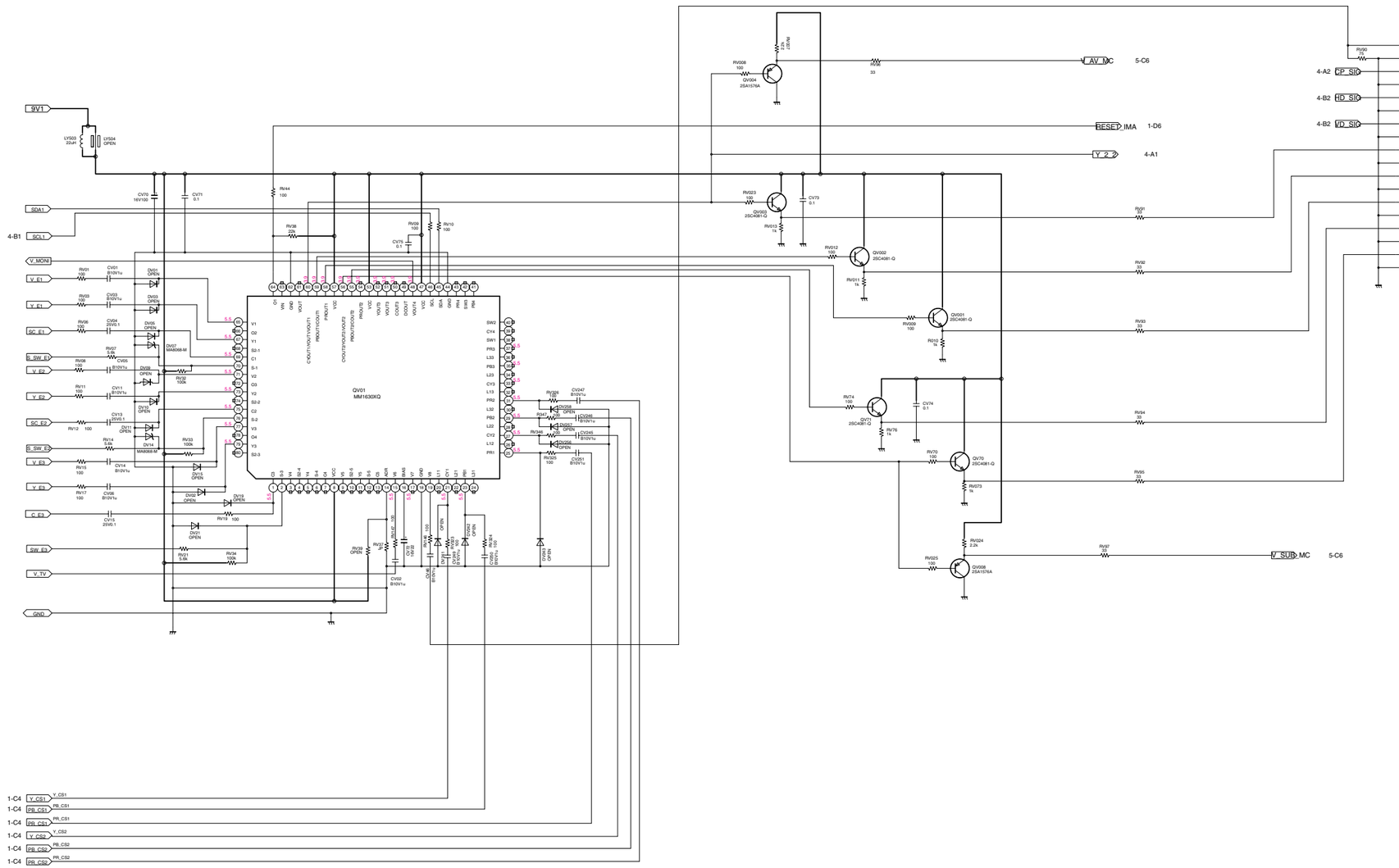




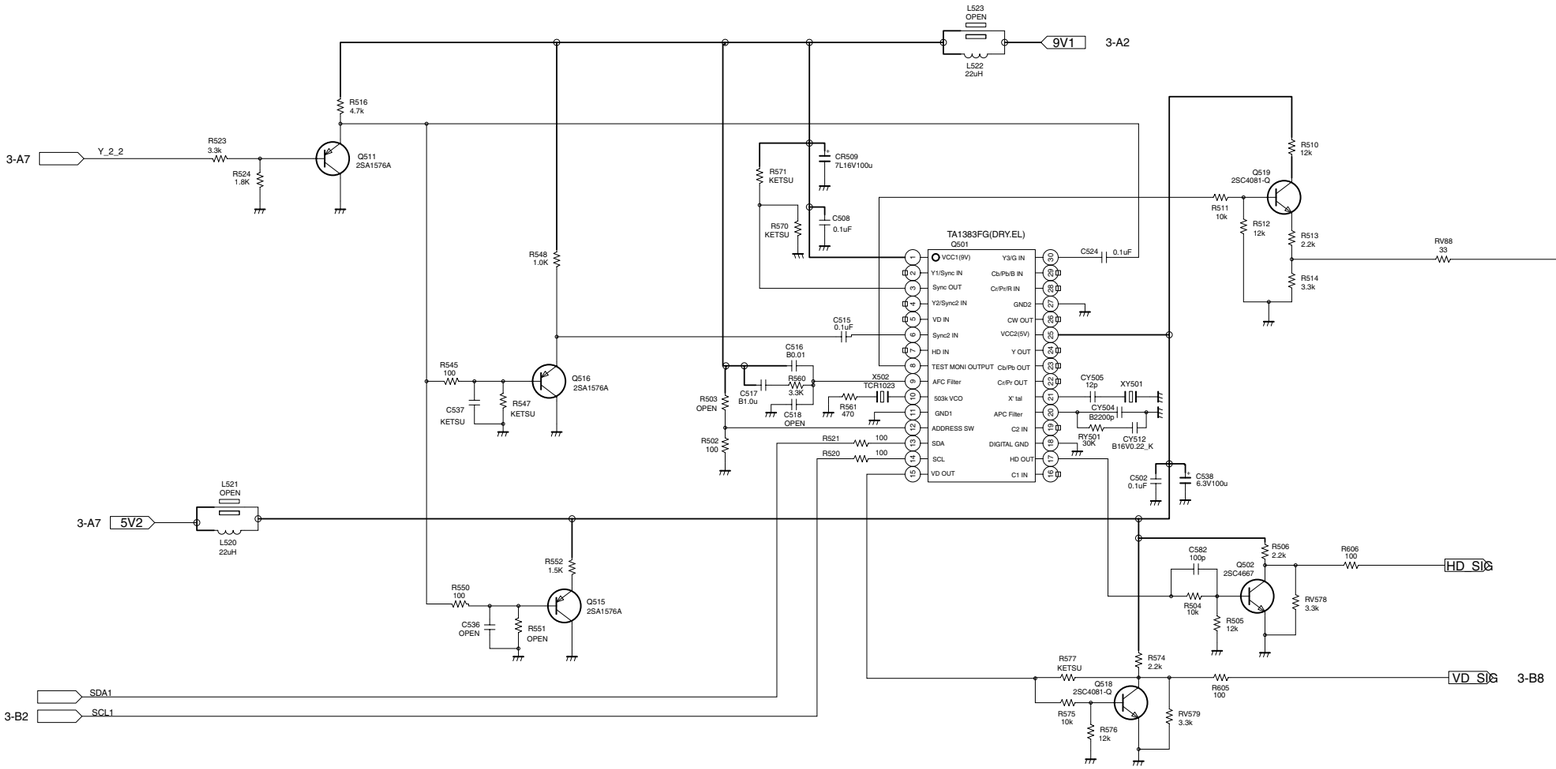
46HM94/52HM94/62HM94
BACK_AV (1/6)
[SHEET-1/6]



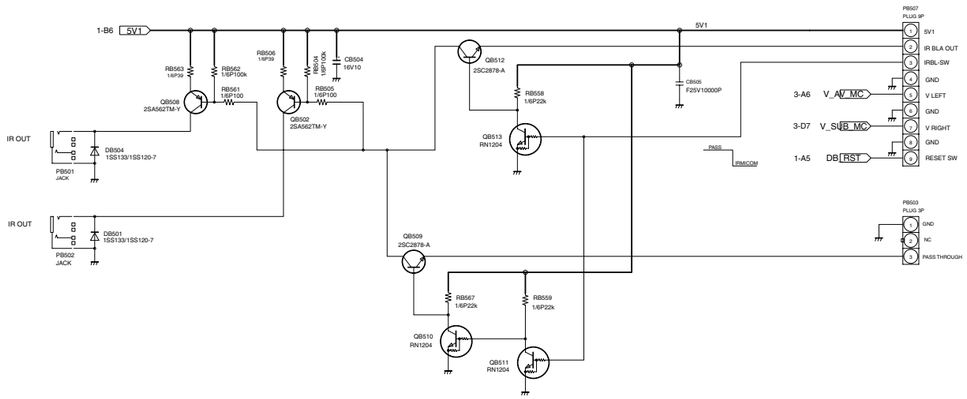
46HM94/52HM94/62HM94
BACK_AV (AUDIO_SELECT)
[SHEET-2/6]



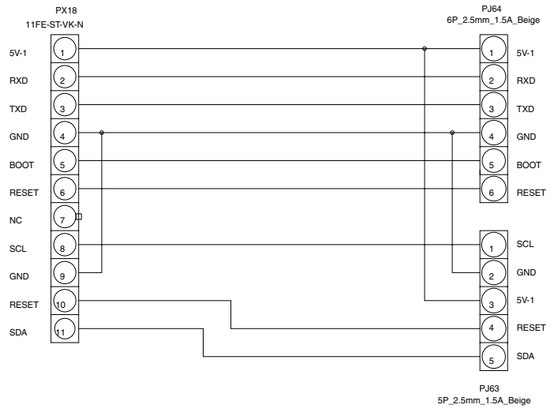
46HM94/52HM94/62HM94
BACK_AV (VIDEO_SELECT1)
[SHEET-3/6]

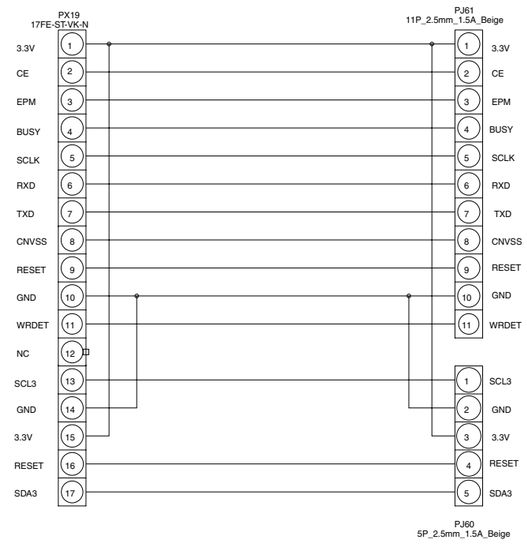


46HM94/52HM94/62HM94
BACK_AV (VIDEO_SELECT2)
[SHEET-4/6]

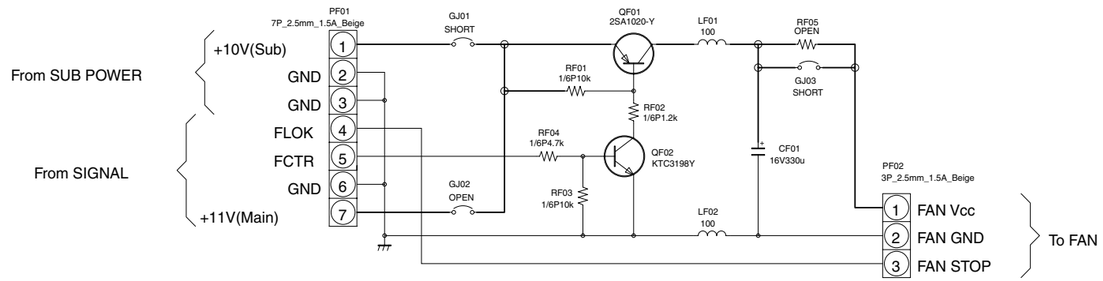


46HM94/52HM94/62HM94
BACK_AV (IR_BLASTER)
[SHEET-5/6]

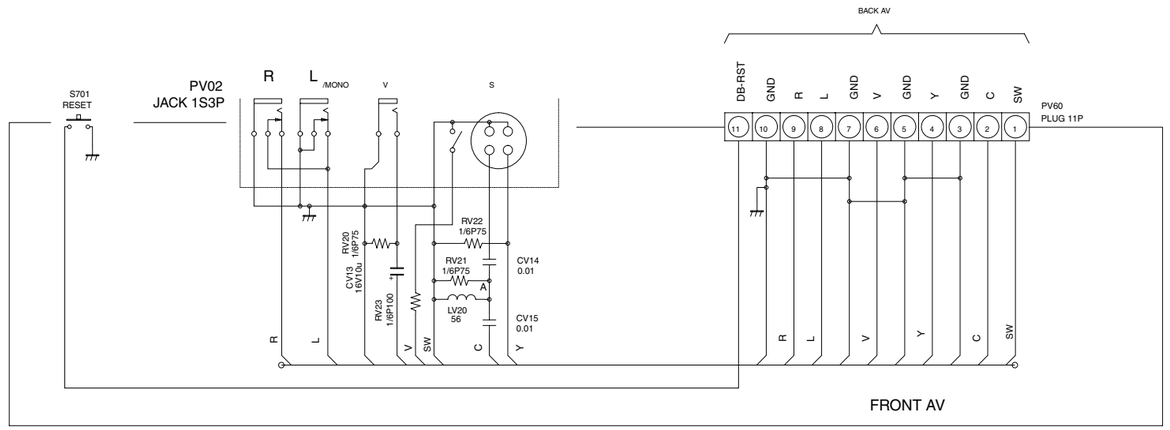


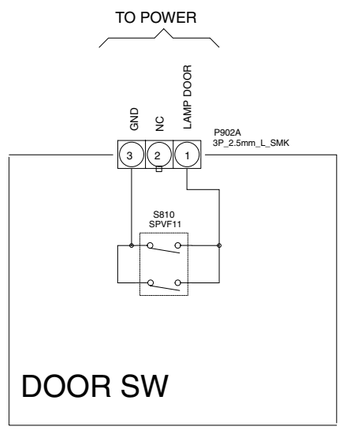


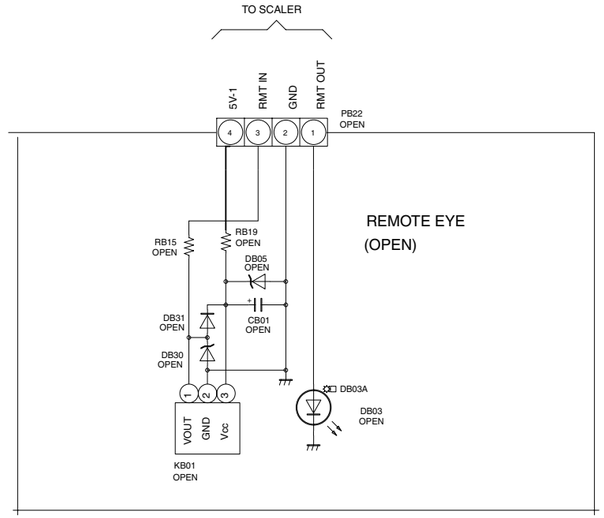
46HM94/52HM94/62HM94
BACK_AV (WRIGHT_CONNECTION)
[SHEET-6/6]



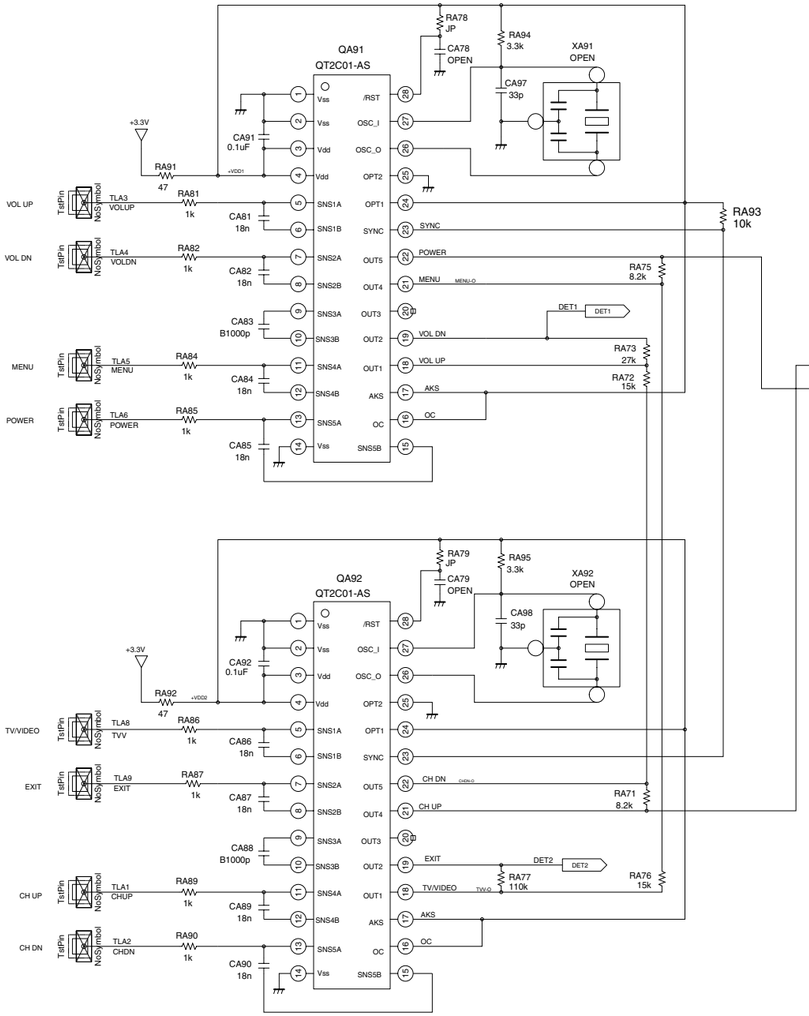
46HM94/52HM94/62HM94
FAN_CONTROL



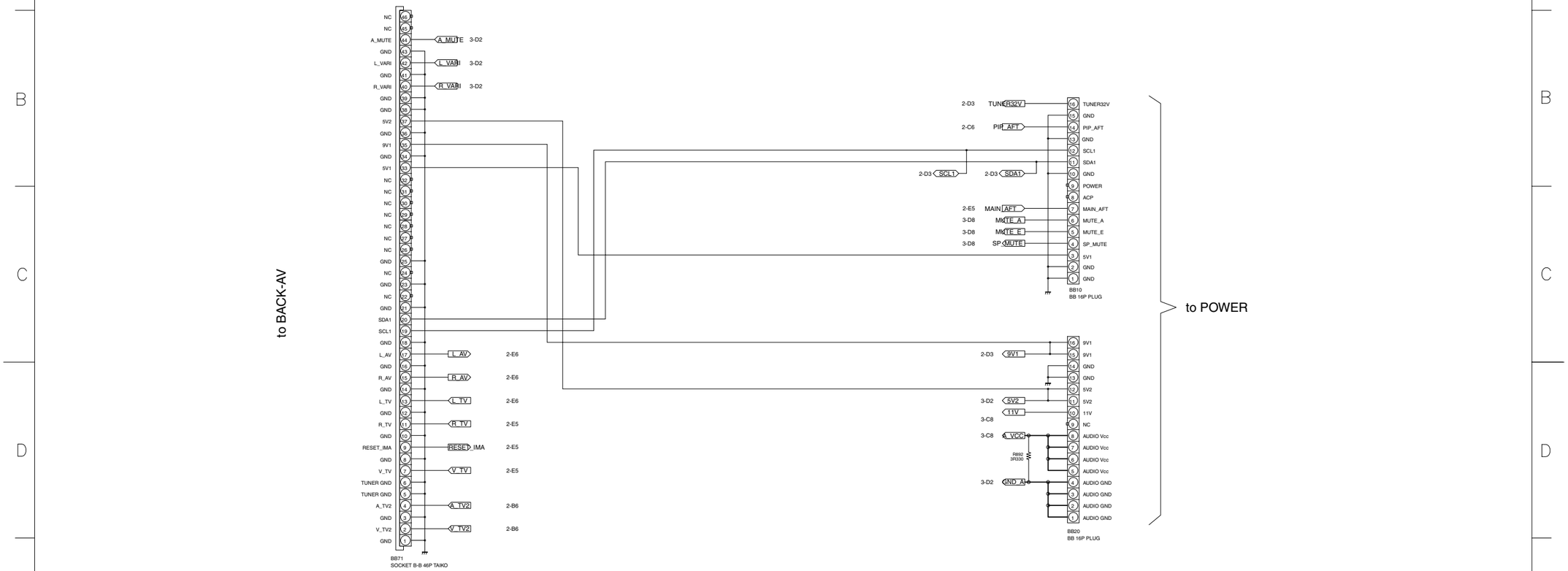




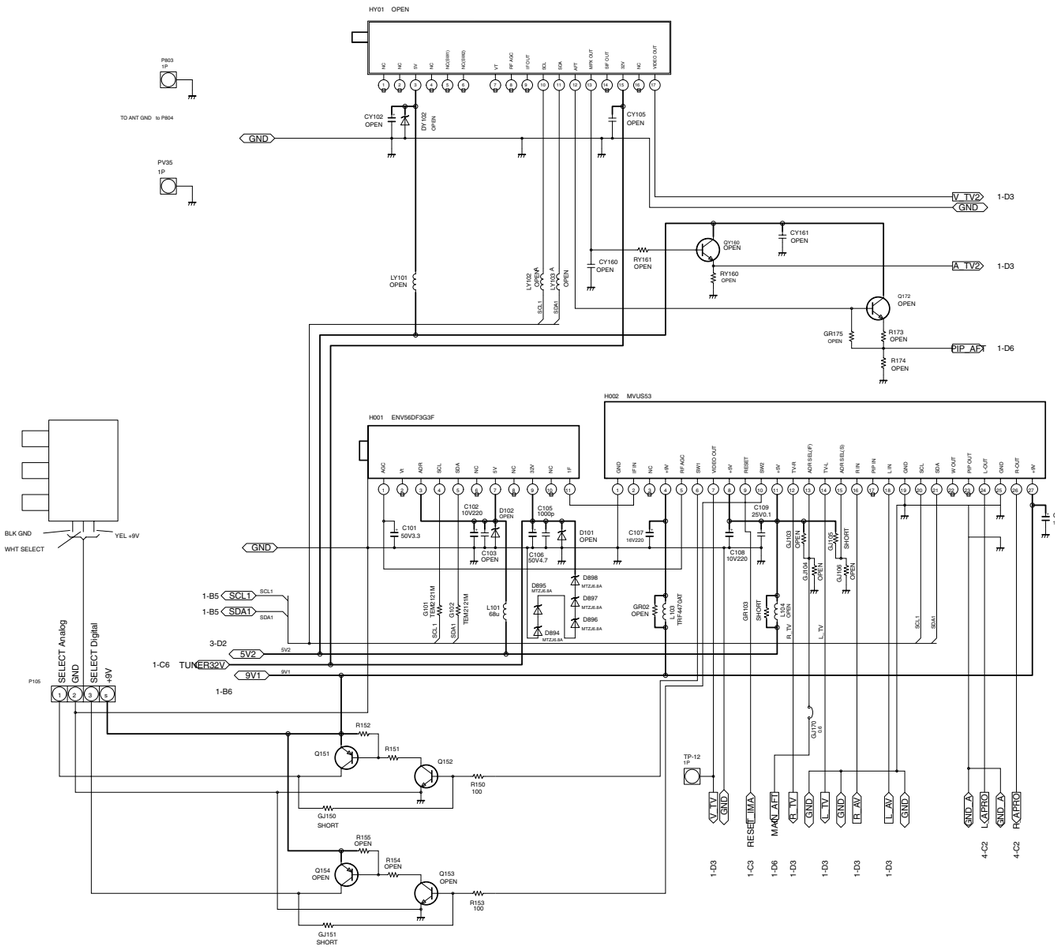
46HM94/52HM94/62HM94
FRONT_AV



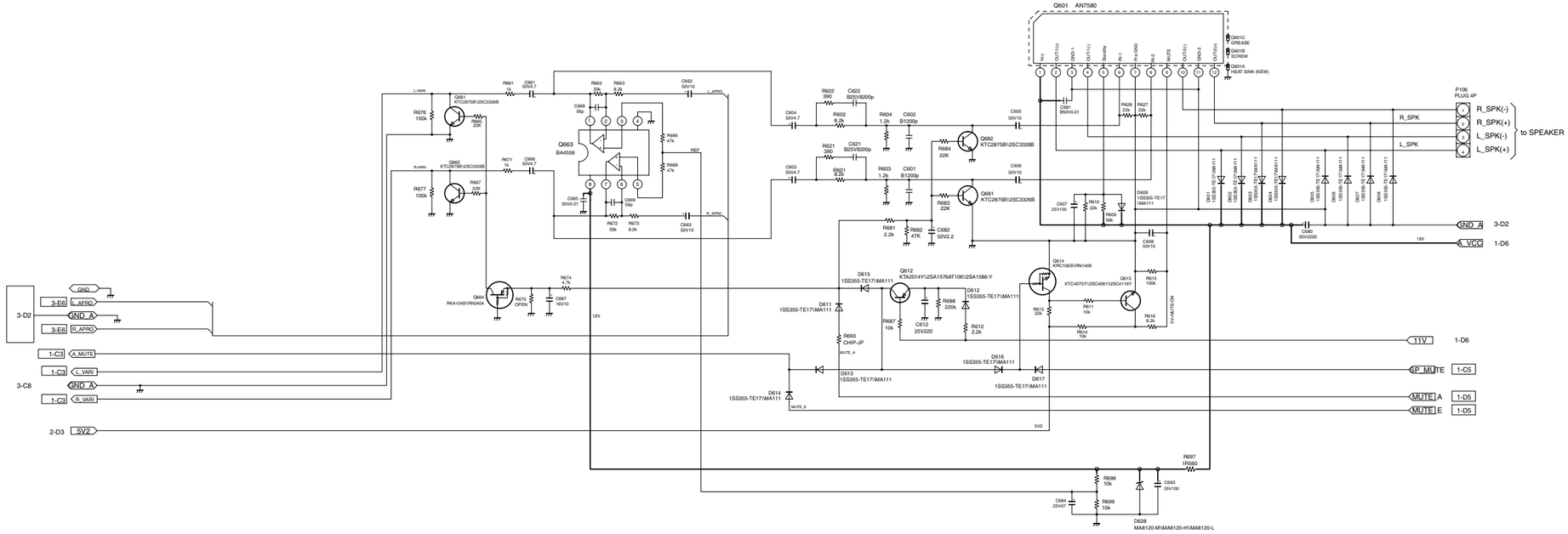
46HM94/52HM94/62HM94
FRONT_KEY (TOUCH_CONTROL_PANEL)



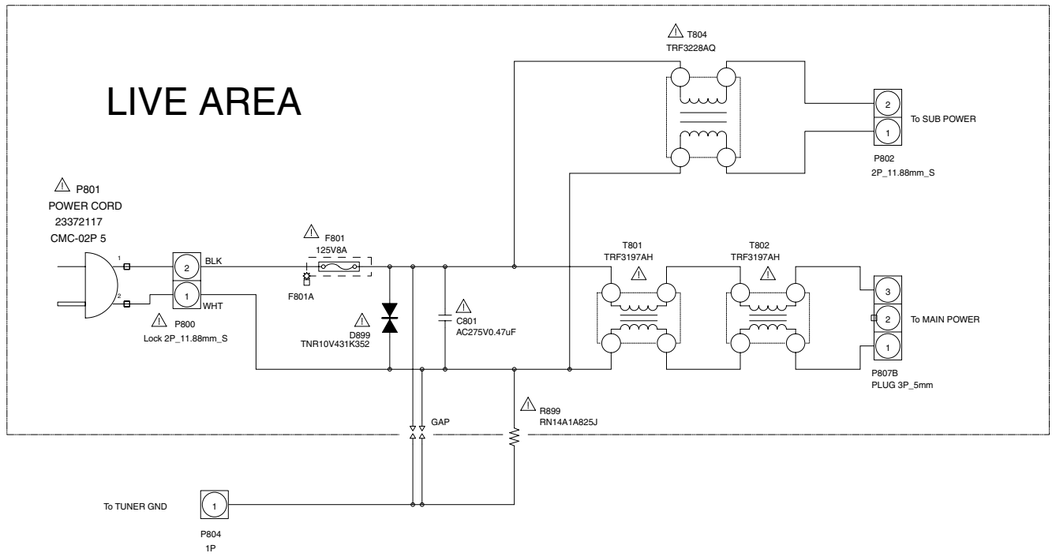
46HM94/52HM94/62HM94
IF_AUDIO (IF/AUDIO)
[SHEET-1/4]



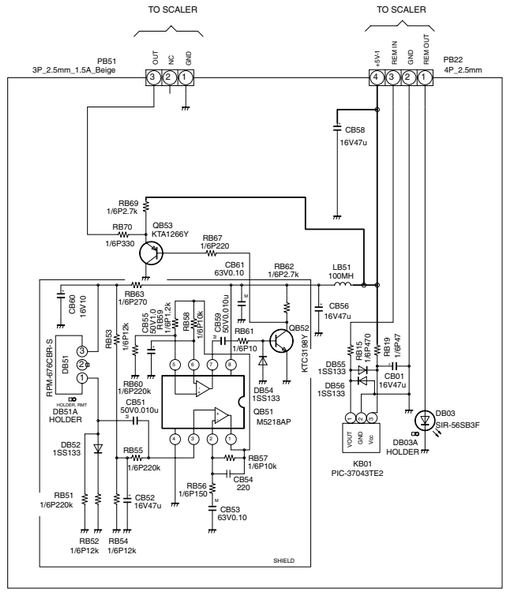
46HM94/52HM94/62HM94
IF_AUDIO (IF/TIF)
[SHEET-2/4]



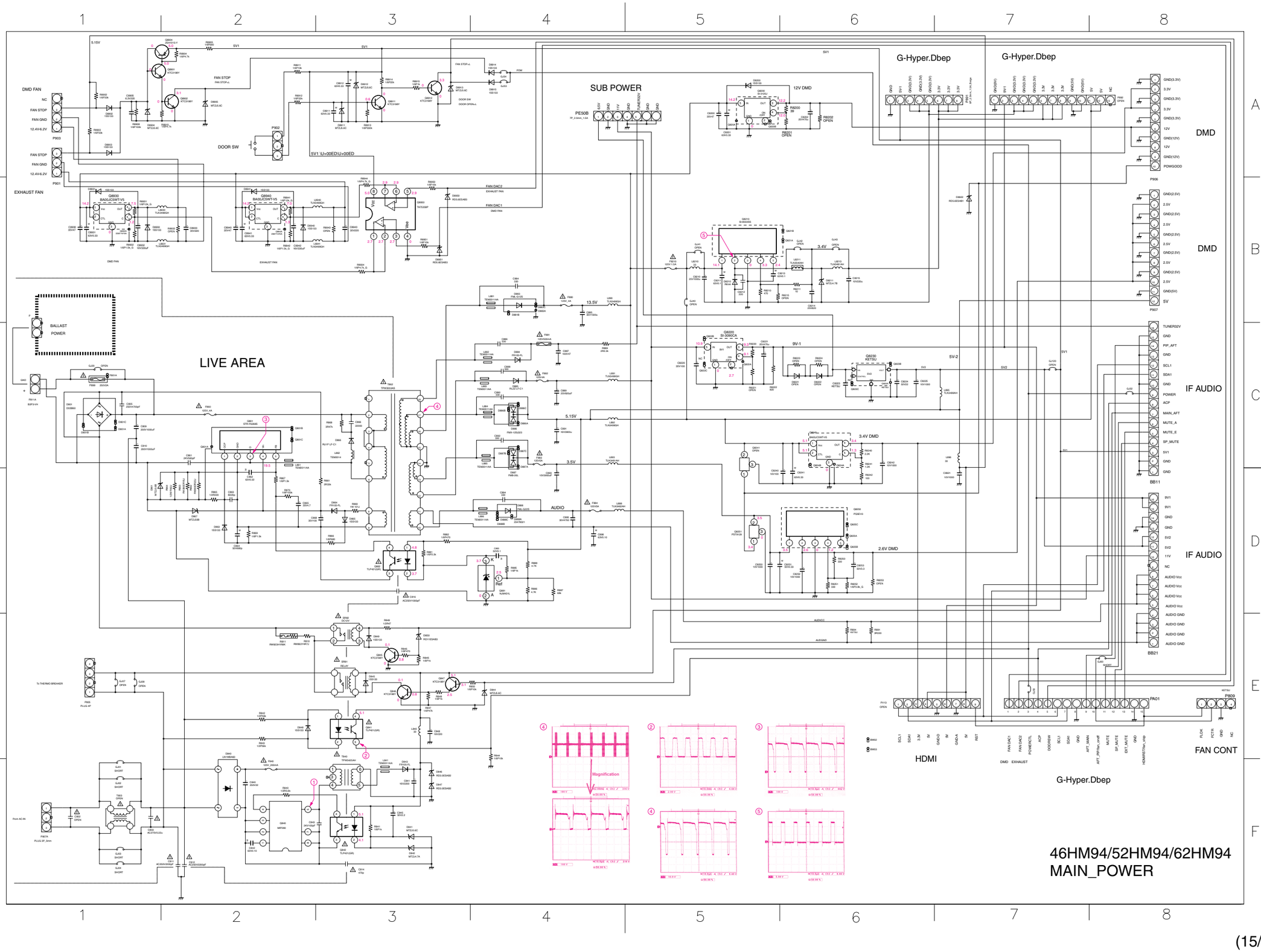
46HM94/52HM94/62HM94
IF_AUDIO (SOUND)
[SHEET-3/4]

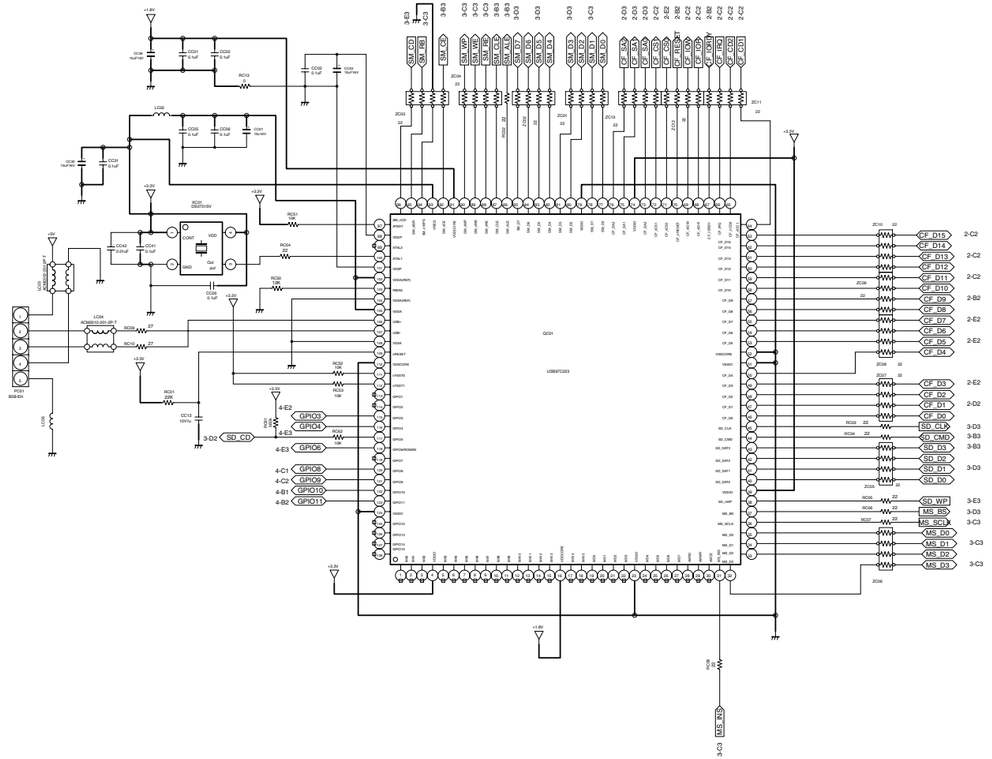


46HM94/52HM94/62HM94
IF_AUDIO (AIN)
[SHEET-4/4]



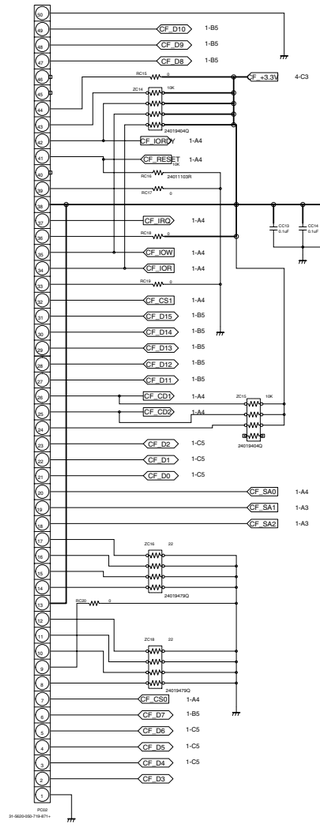
46HM94/52HM94/62HM94
IR_BLA_OUT


SUB POWER
LIVE AREA
AUDIO
DMD FAN
EXHAUST FAN
DOOR SW
FAN STOP
FAN GND
12.4V-6.2V
BALLAST POWER
To THERMO BREAKER
From AC-IN
5.15V
SV1
3.5V
13.5V
12V DMD
3.4V DMD
2.6V DMD
9V-1
5V-2
G-Hyper.Dbep
DMD
IF AUDIO
FAN CONT
HDMI
46HM94/52HM94/62HM94
MAIN_POWER



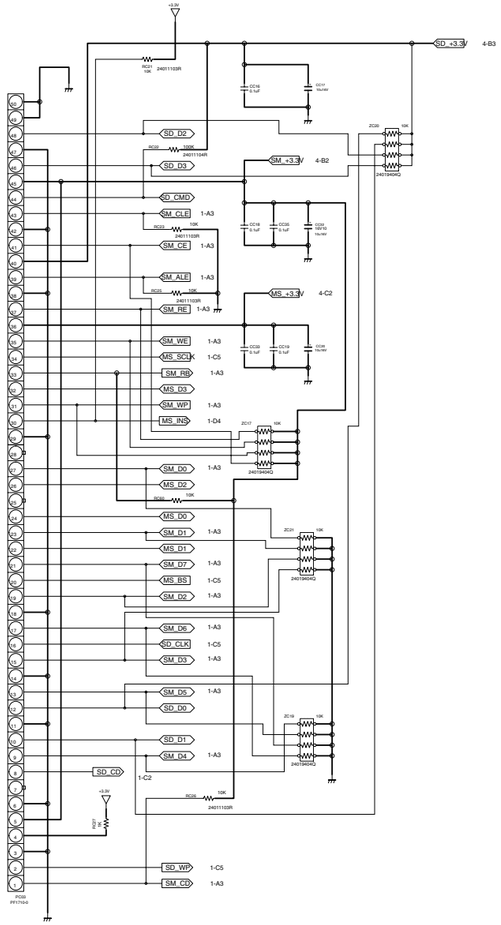
46HM94/52HM94/62HM94
MULTI_CARD (1/4)
[SHEET-1/4]

31-5620-050-719-871+

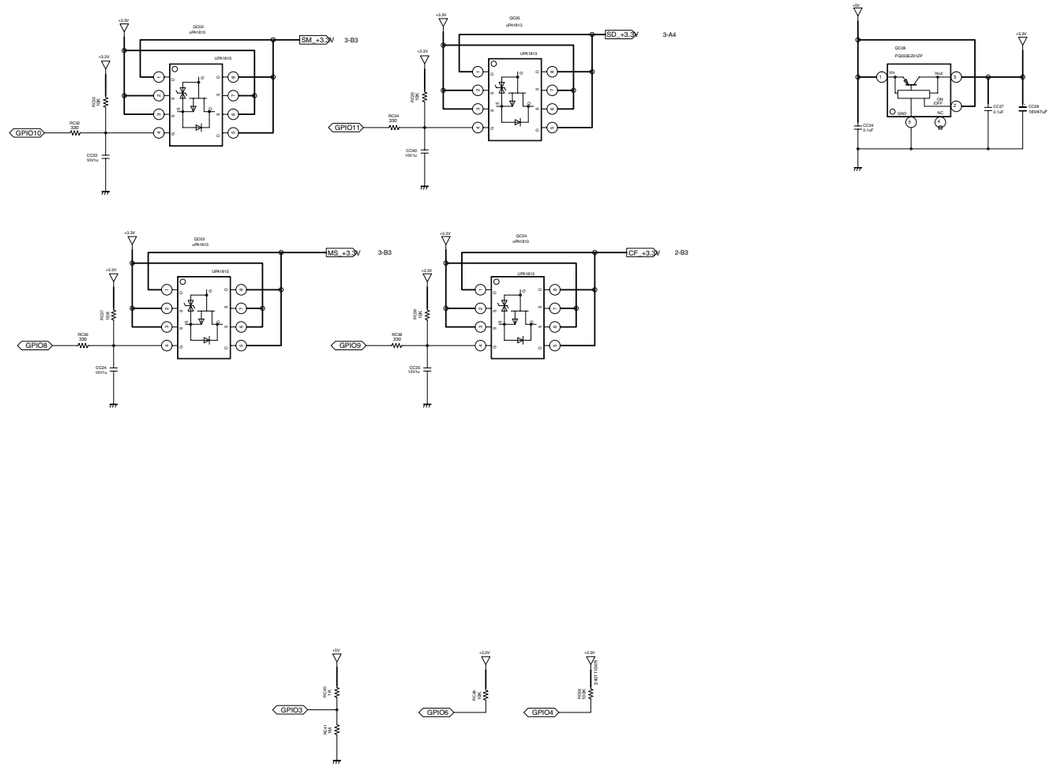


46HM94/52HM94/62HM94
MULTI_CARD (2/4)
[SHEET-2/4]

PF1710-0

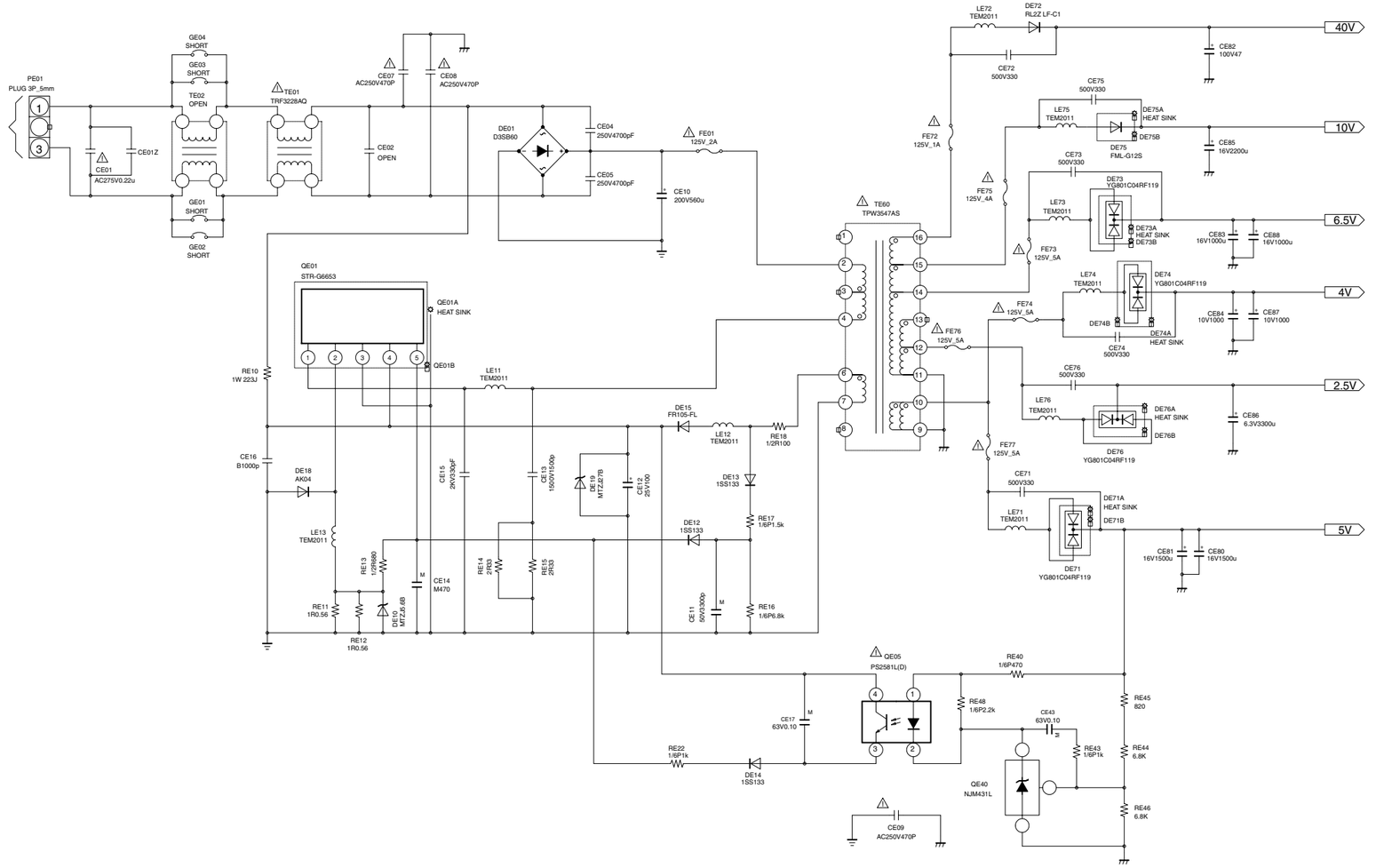


46HM94/52HM94/62HM94
MULTI_CARD (3/4)
[SHEET-3/4]

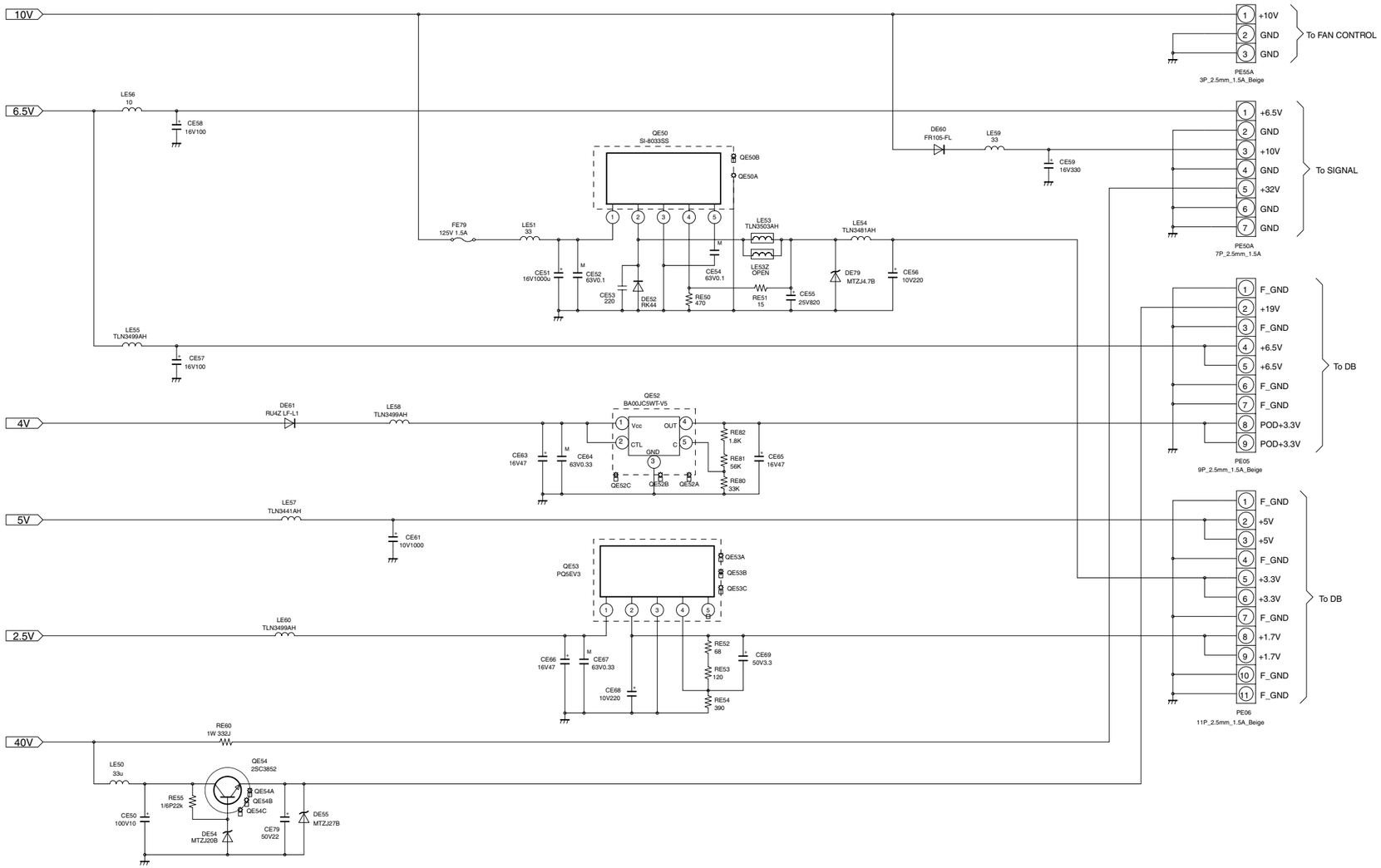


46HM94/52HM94/62HM94
MULTI_CARD (4/4)
[SHEET-4/4]

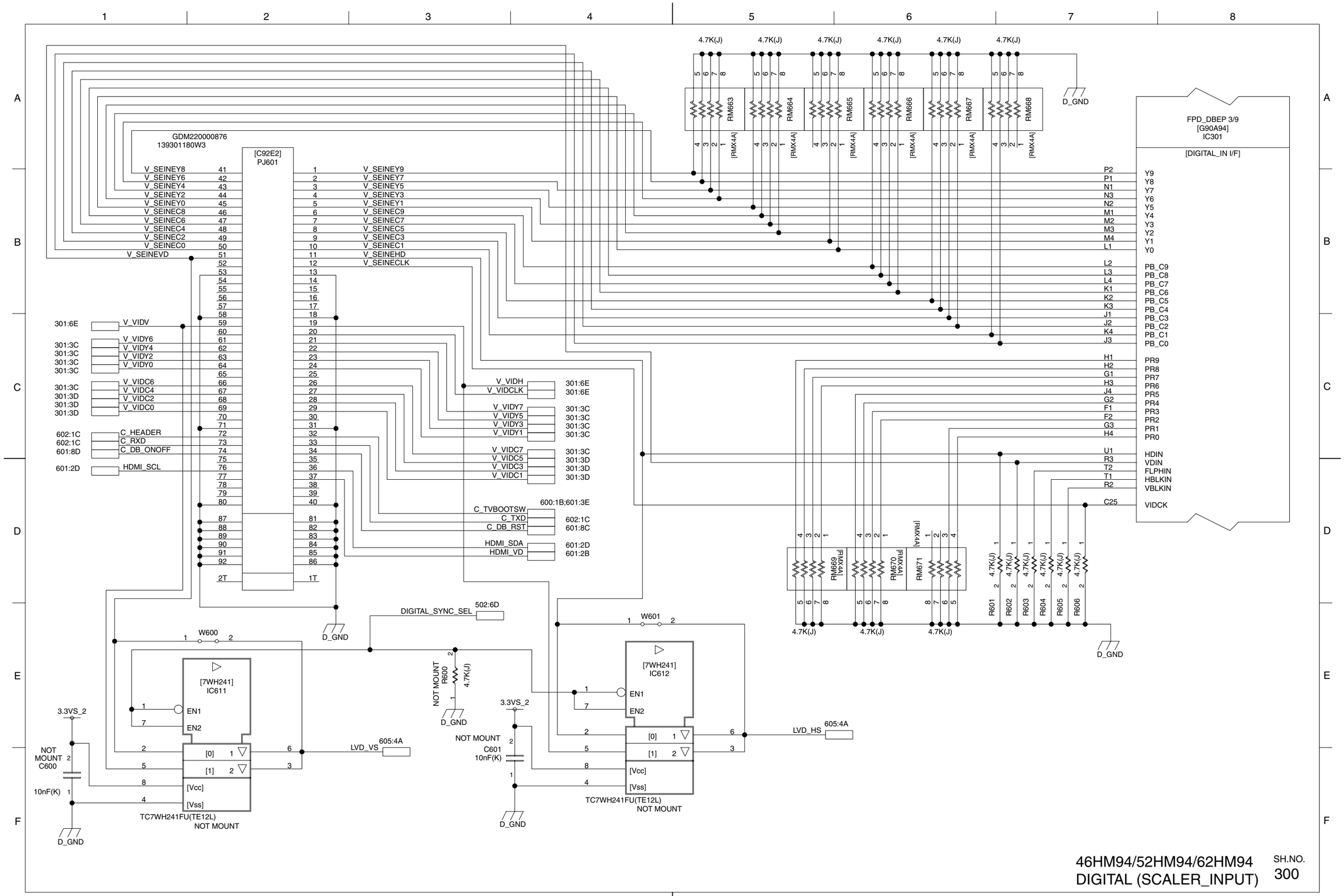
From DEF/POWER

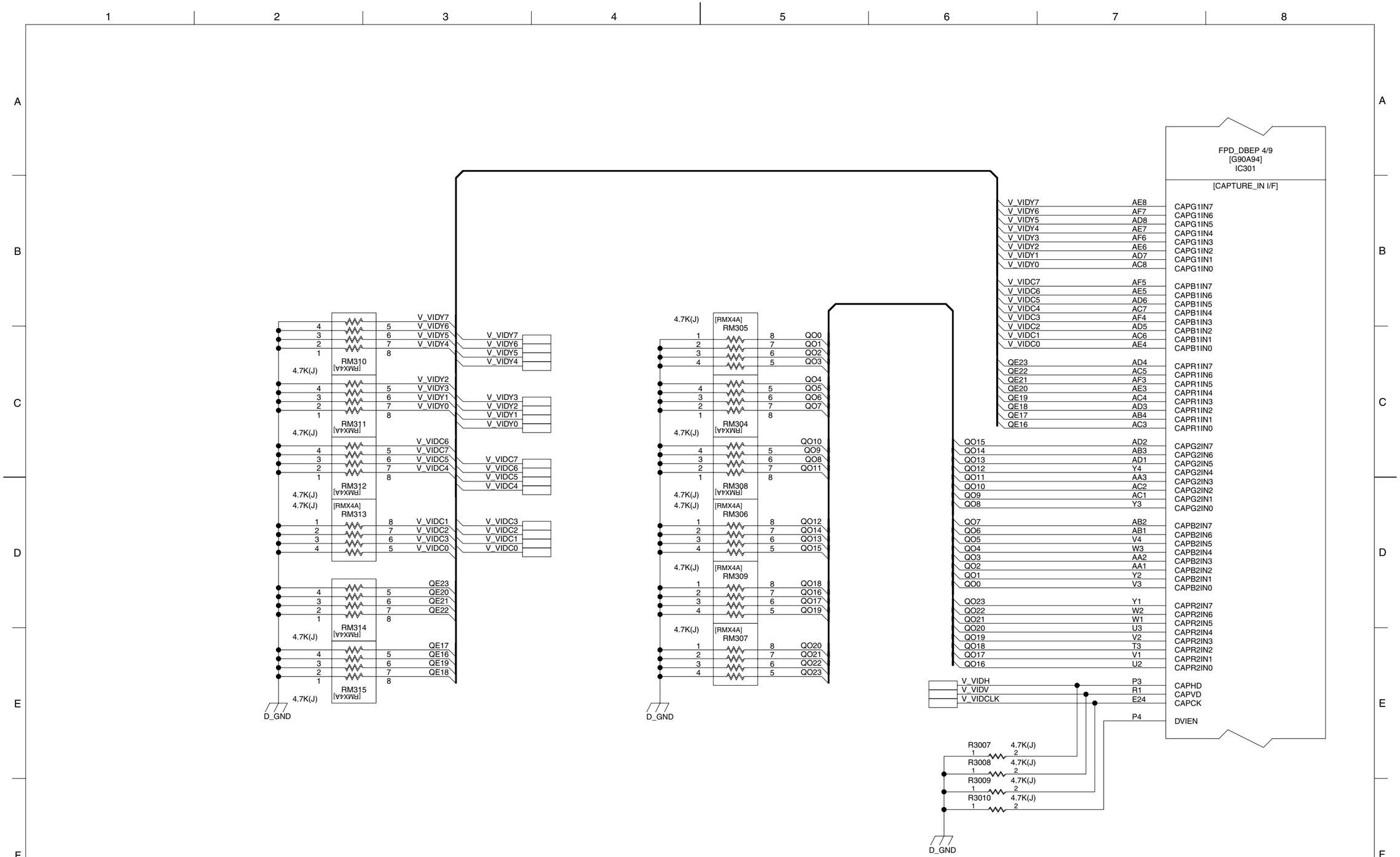


46HM94/52HM94/62HM94
SUB_POWER (1/2)
[SHEET-1/2]

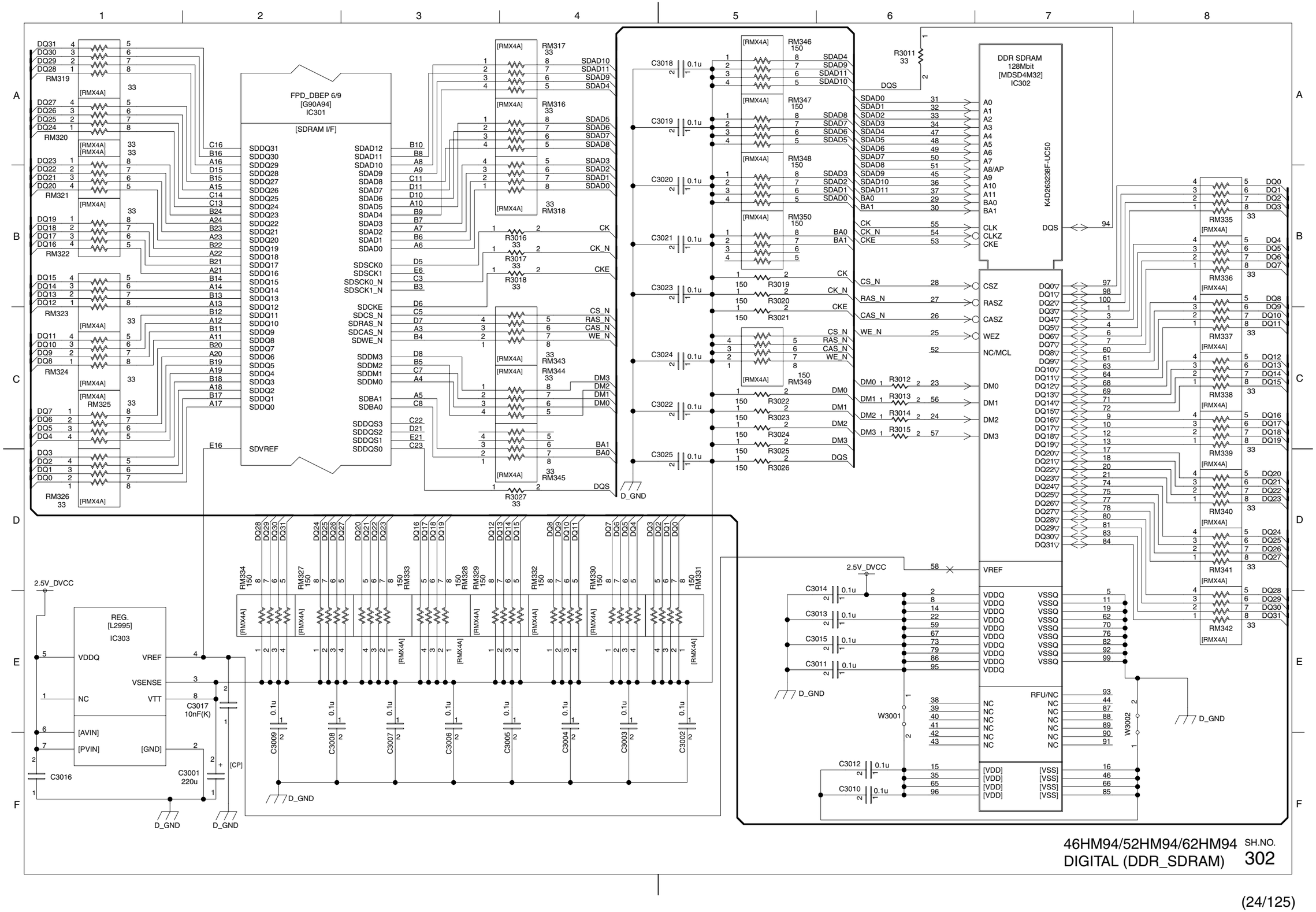


46HM94/52HM94/62HM94
SUB_POWER (2/2)
[SHEET-2/2]

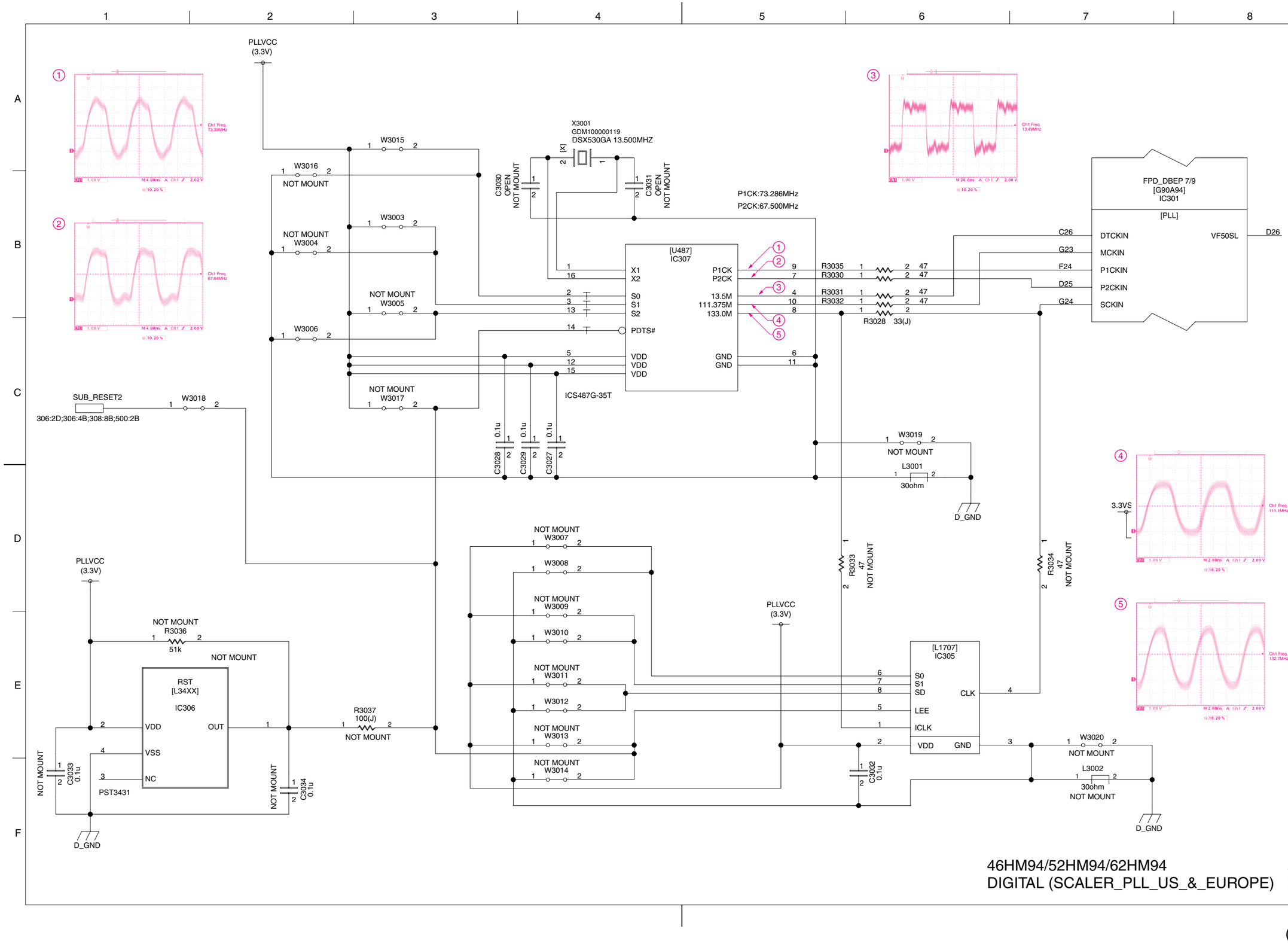

GDM220000876
139301180W3
[C92E2]
PJ601
V_SEINEY8
V_SEINEY6
V_SEINEY4
V_SEINEY2
V_SEINEY0
V_SEINEC8
V_SEINEC6
V_SEINEC4
V_SEINEC2
V_SEINEC0
V_SEINEVD
V_SEINEY9
V_SEINEY7
V_SEINEY5
V_SEINEY3
V_SEINEY1
V_SEINEC9
V_SEINEC7
V_SEINEC5
V_SEINEC3
V_SEINEC1
V_SEINEHD
V_SEINECLK
4.7K(J)
RM663
RM664
RM665
RM666
RM667
RM668
[RMX4A]
D_GND
FPD_DBEP 3/9
[G90A94]
IC301
[DIGITAL_IN I/F]
P2 Y9
P1 Y8
N1 Y7
N3 Y6
N2 Y5
M1 Y4
M2 Y3
M3 Y2
M4 Y1
L1 Y0
L2 PB_C9
L3 PB_C8
L4 PB_C7
K1 PB_C6
K2 PB_C5
K3 PB_C4
J1 PB_C3
J2 PB_C2
K4 PB_C1
J3 PB_C0
H1 PR9
H2 PR8
G1 PR7
H3 PR6
J4 PR5
G2 PR4
F1 PR3
F2 PR2
G3 PR1
H4 PR0
U1 HDIN
R3 VDIN
T2 FLPHIN
T1 HBLKIN
R2 VBLKIN
C25 VIDCK
301:6E V_VIDV
301:3C V_VIDY6
301:3C V_VIDY4
301:3C V_VIDY2
301:3C V_VIDY0
301:3C V_VIDC6
301:3D V_VIDC4
301:3D V_VIDC2
301:3D V_VIDC0
602:1C C_HEADER
602:1C C_RXD
601:8D C_DB_ONOFF
601:2D HDMI_SCL
V_VIDH
V_VIDCLK
301:6E
301:6E
V_VIDY7
V_VIDY5
V_VIDY3
V_VIDY1
301:3C
301:3C
301:3C
301:3C
V_VIDC7
V_VIDC5
V_VIDC3
V_VIDC1
301:3C
301:3D
301:3D
301:3D
600:1B;601:3E
C_TVBOOTSW
C_TXD
C_DB_RST
602:1C
601:8C
HDMI_SDA
HDMI_VD
601:2D
601:2B
2T
1T
D_GND
DIGITAL_SYNC_SEL
502:6D
W600
W601
NOT MOUNT
R600
4.7K(J)
[7WH241]
IC611
[7WH241]
IC612
EN1
EN2
[0]
[1]
[Vcc]
[Vss]
3.3VS_2
NOT MOUNT
C600
10nF(K)
NOT MOUNT
C601
10nF(K)
LVD_VS
LVD_HS
605:4A
TC7WH241FU(TE12L)
NOT MOUNT
RM669
RM670
RM671
R601
R602
R603
R604
R605
R606
46HM94/52HM94/62HM94
DIGITAL (SCALER_INPUT)
SH.NO.
300



46HM94/52HM94/62HM94 SH.NO.
DIGITAL (CAPTURE_INPUT) 301

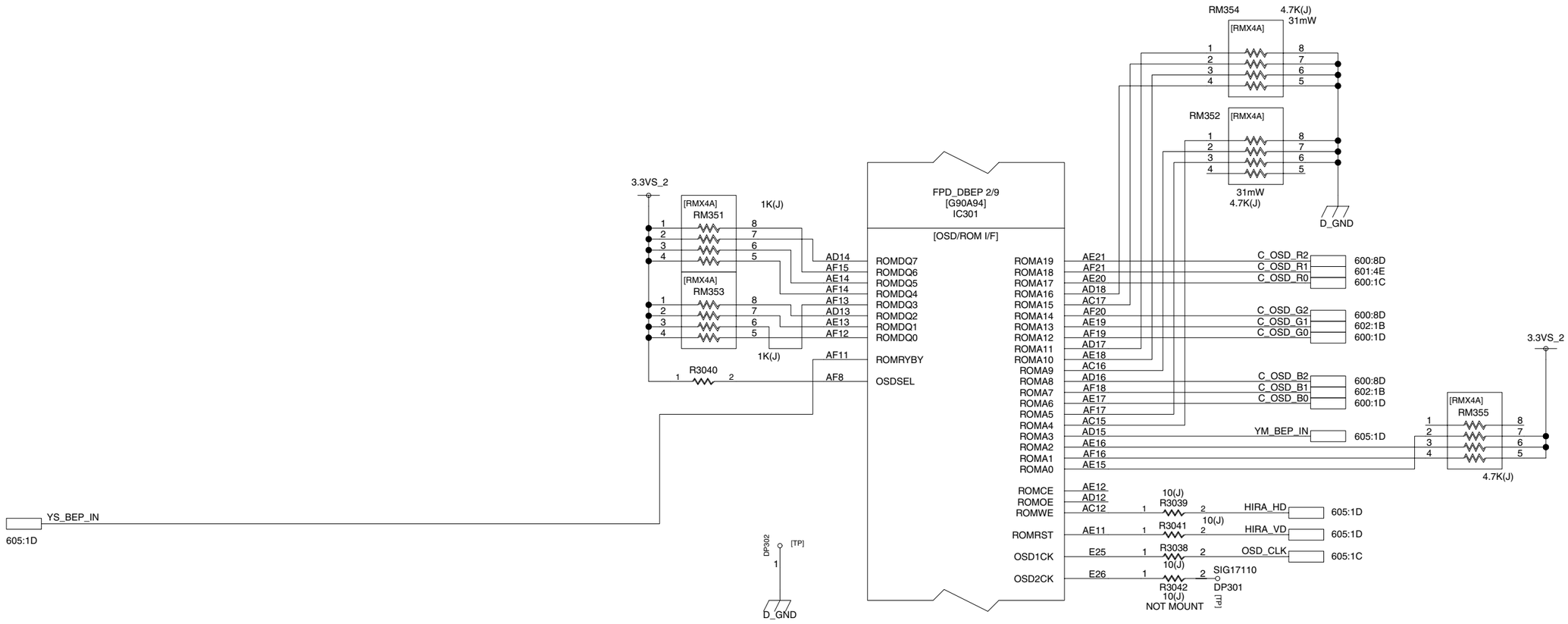


46HM94/52HM94/62HM94 SH.NO.
DIGITAL (DDR_SDRAM) 302



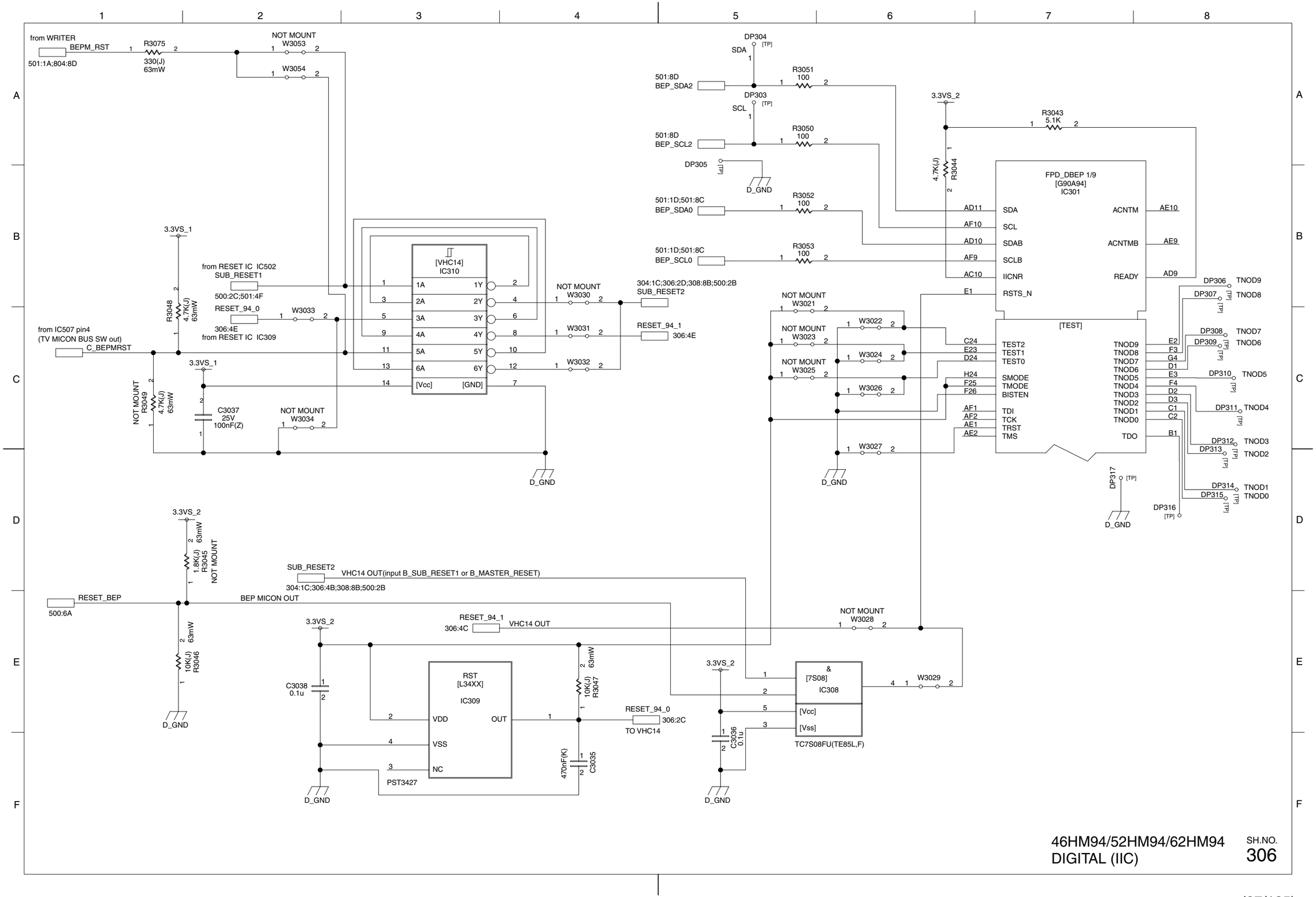
46HM94/52HM94/62HM94
DIGITAL (SCALER_PLL_US_&_EUROPE)

SH.NO.
304



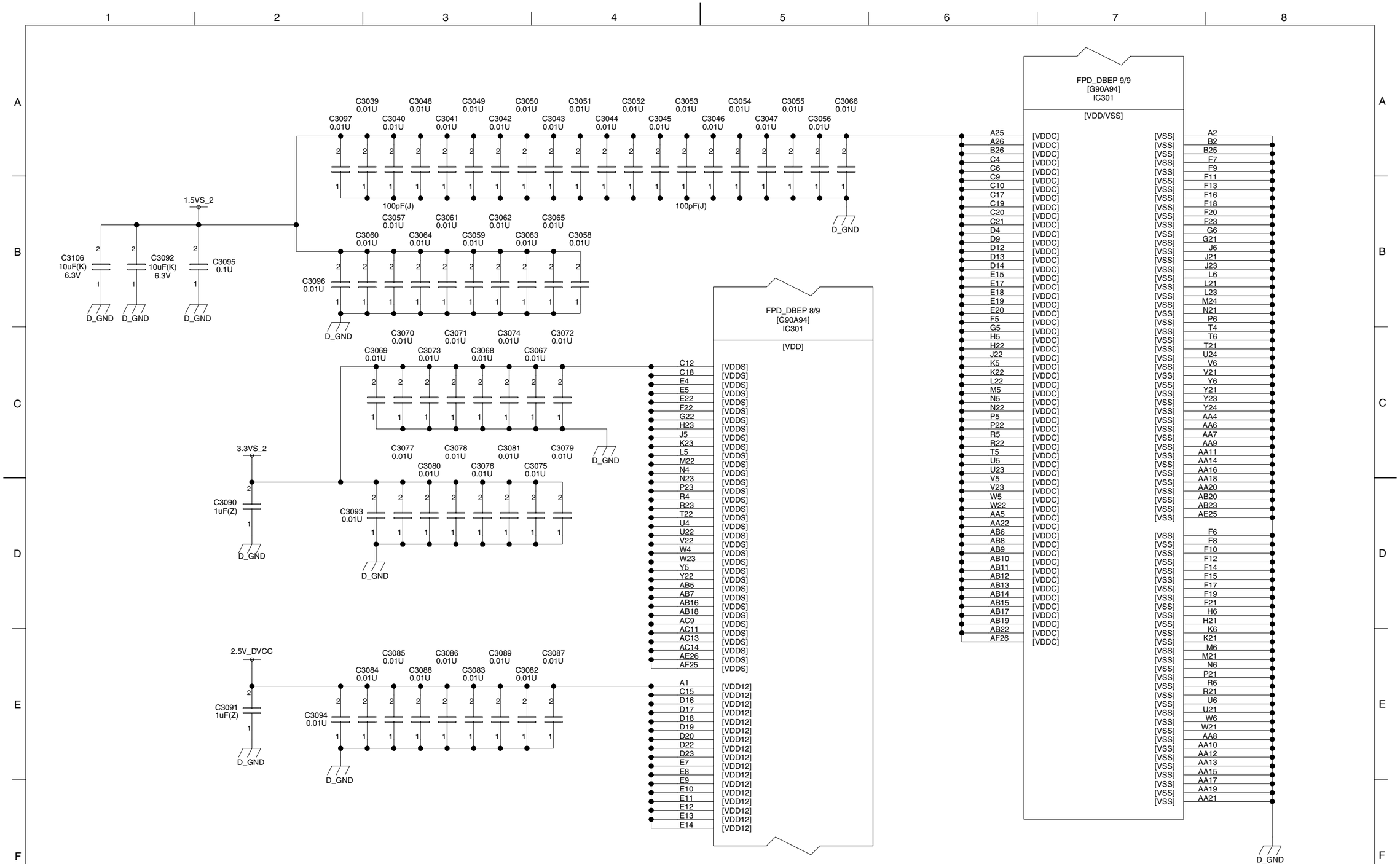
46HM94/52HM94/62HM94
DIGITAL (OSD_FOR_NORTH_AMERICA)

SH.NO.
305

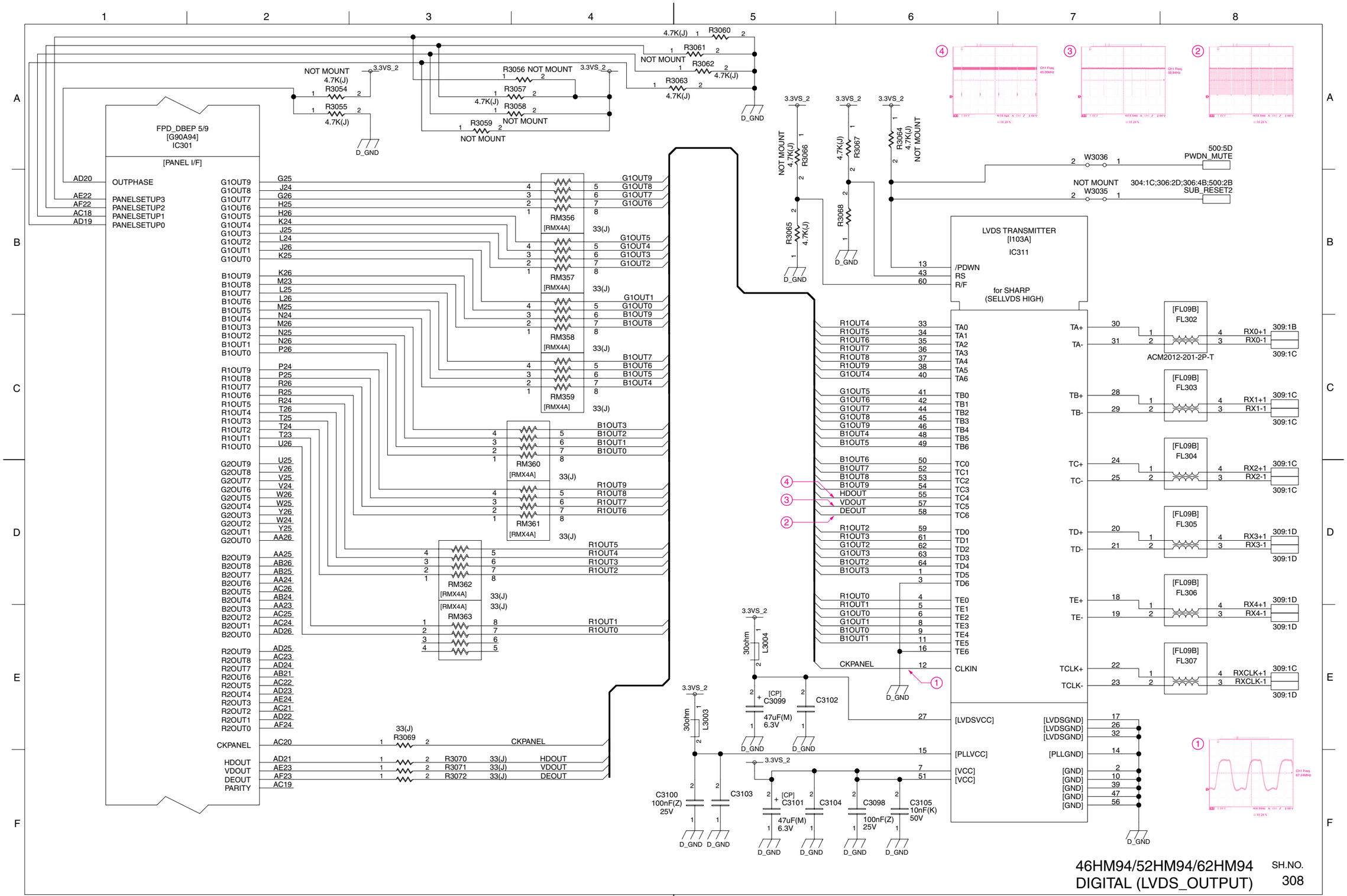


46HM94/52HM94/62HM94
DIGITAL (IIC)

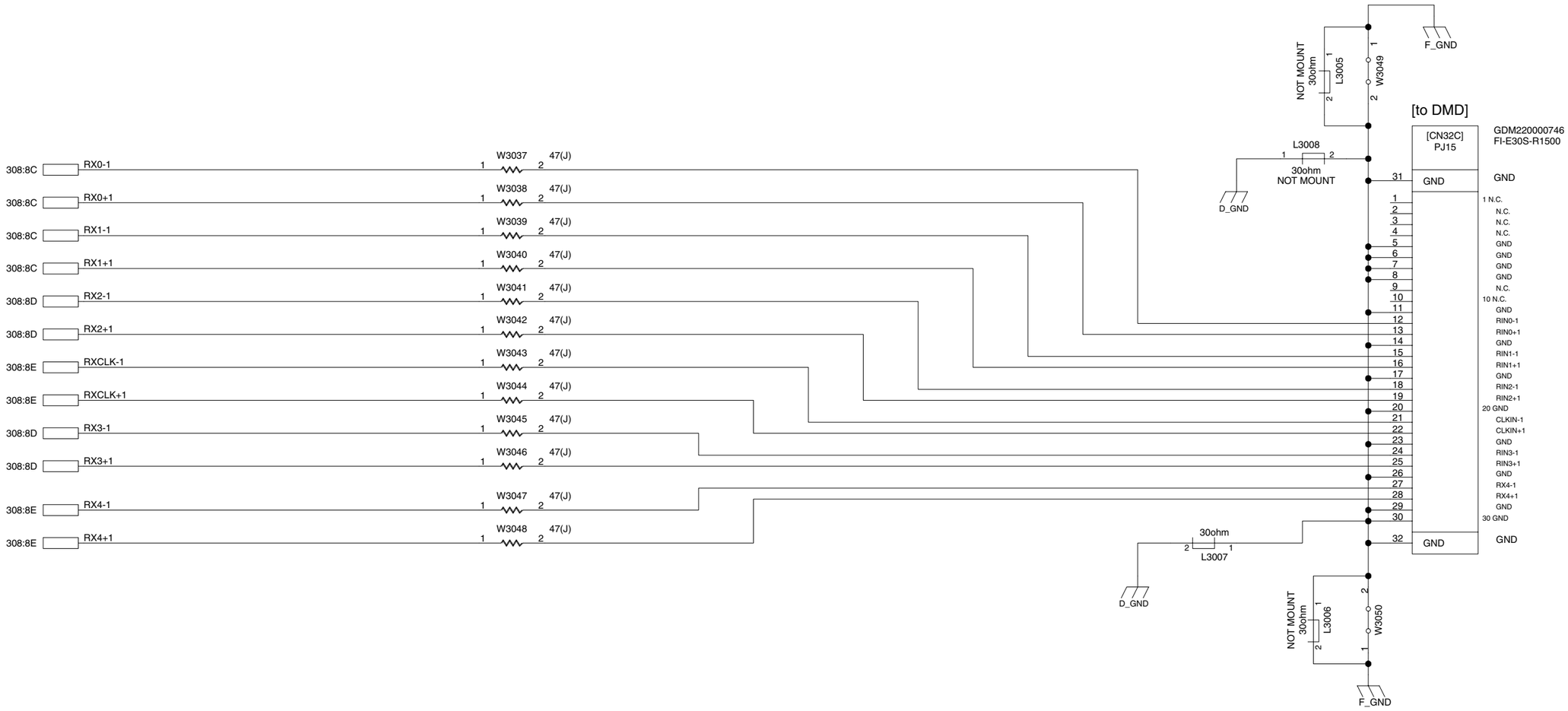
SH.NO.
306



46HM94/52HM94/62HM94 SH.NO.
DIGITAL (SCALER_POWER) 307

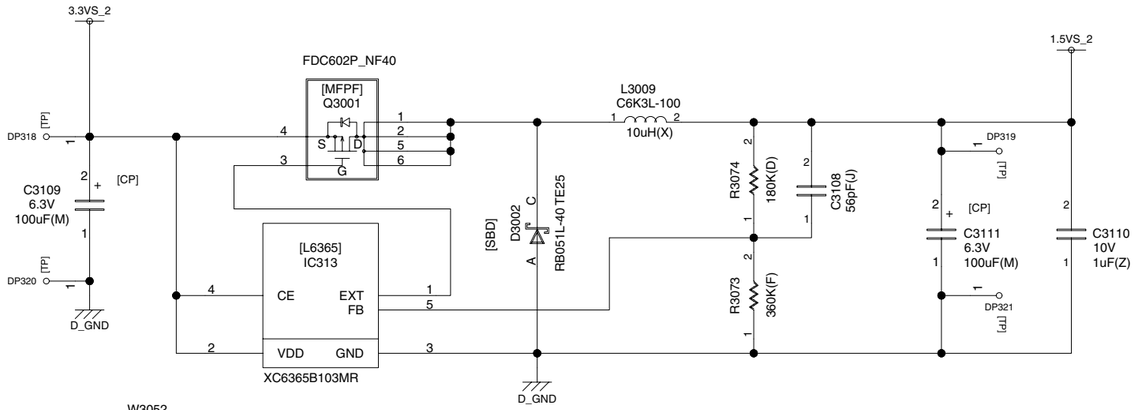


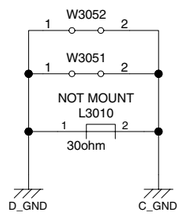
46HM94/52HM94/62HM94 SH.NO. 308
DIGITAL (LVDS_OUTPUT)

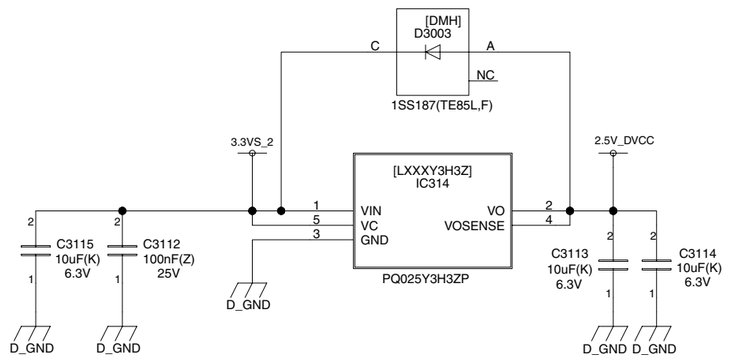


46HM94/52HM94/62HM94
DIGITAL (LVDS_OUT_CONNECTOR)

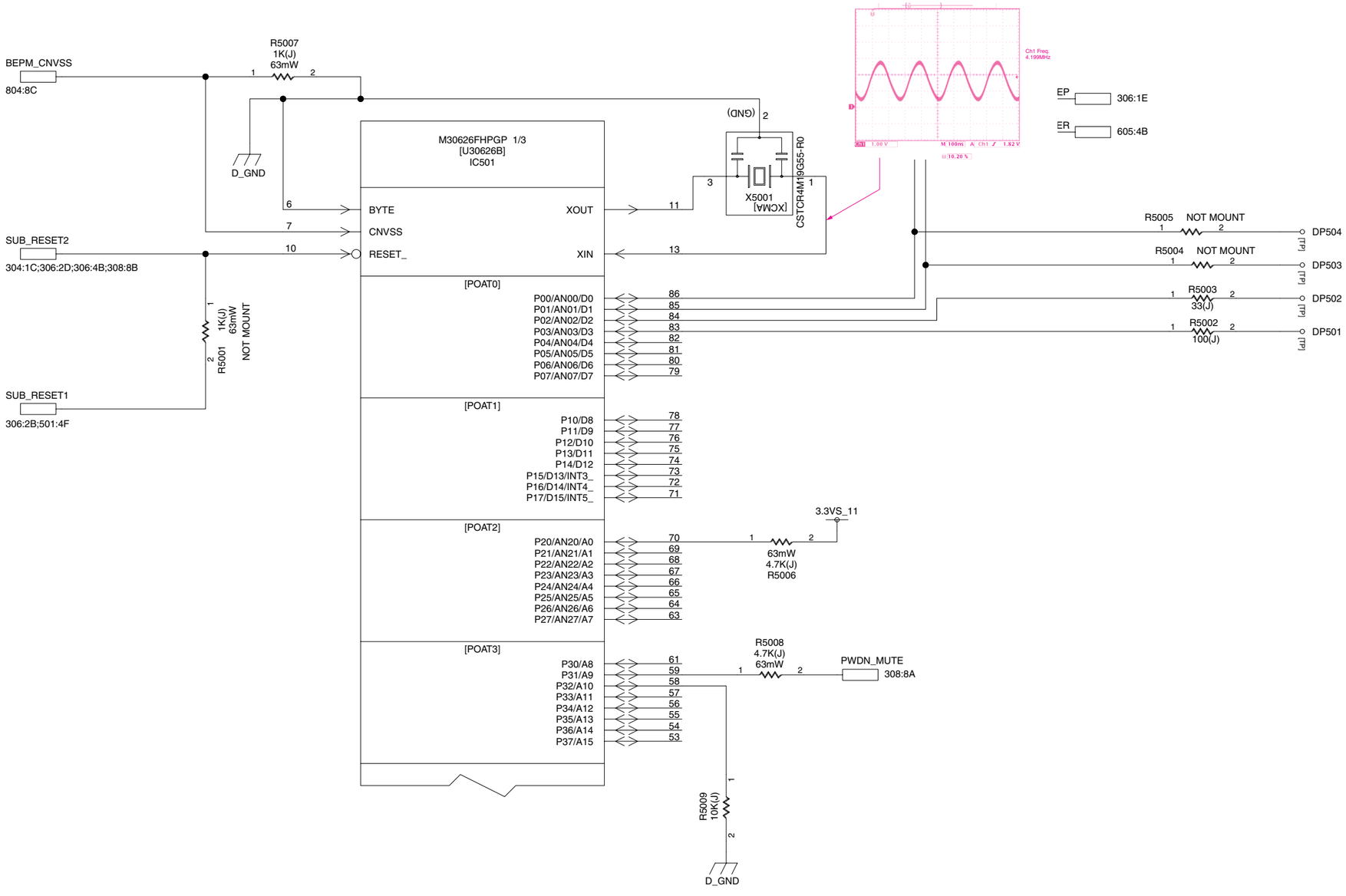
SH.NO. 309



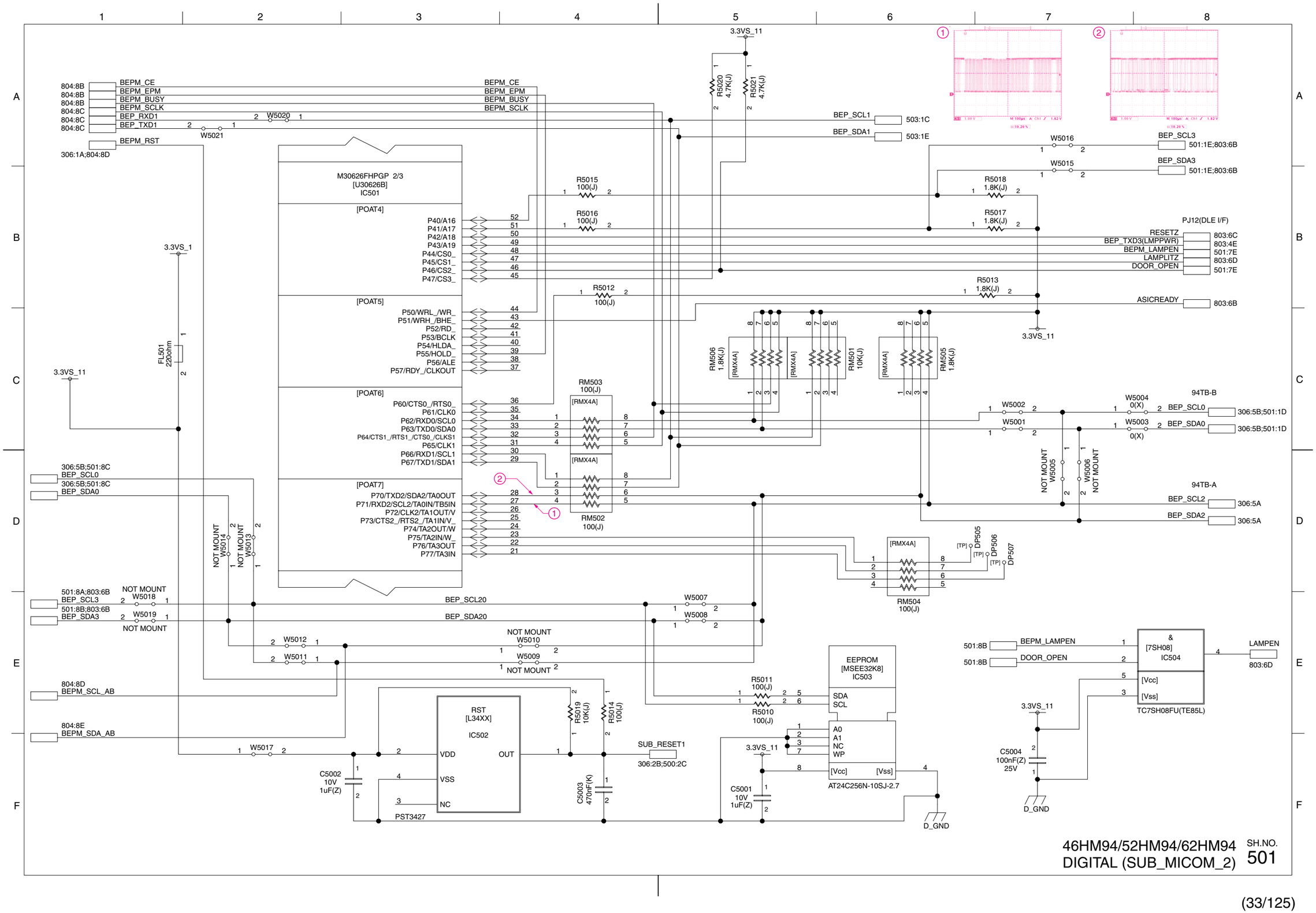


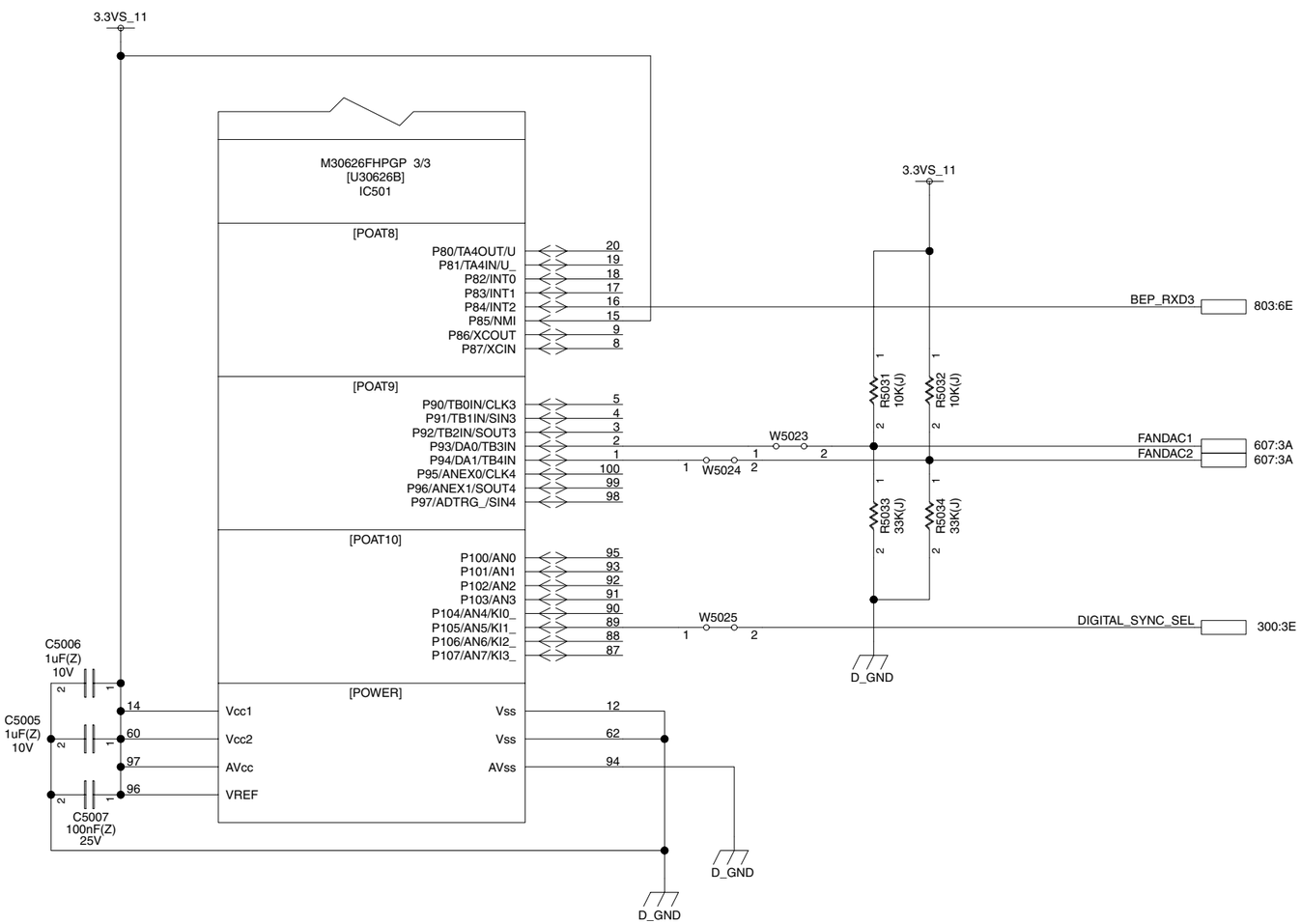


46HM94/52HM94/62HM94 SH.NO.
DIGITAL (DC/DCONVERTER) 310

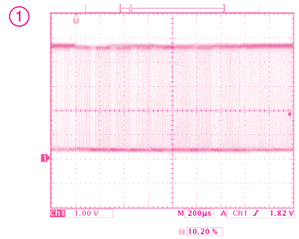


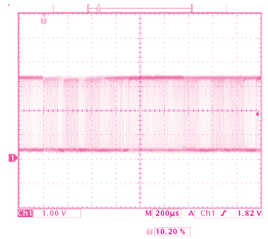
46HM94/52HM94/62HM94 SH.NO.
DIGITAL (SUB_MICOM_1) 500

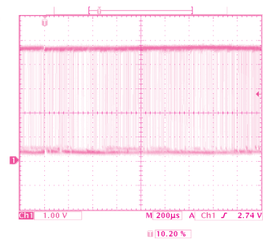

804:8B BEPM_CE
804:8B BEPM_EPM
804:8B BEPM_BUSY
804:8C BEP_SCLK
804:8C BEP_RXD1
804:8C BEP_TXD1
W5020
W5021
BEPM_RST
306:1A;804:8D
M30626FHPGP 2/3
[U30626B]
IC501
[POAT4]
P40/A16
P41/A17
P42/A18
P43/A19
P44/CS0_
P45/CS1_
P46/CS2_
P47/CS3_
[POAT5]
P50/WRL_/WR_
P51/WRH_/BHE_
P52/RD_
P53/BCLK
P54/HLDA_
P55/HOLD_
P56/ALE
P57/RDY_/CLKOUT
[POAT6]
P60/CTS0_/RTS0_
P61/CLK0
P62/RXD0/SCL0
P63/TXD0/SDA0
P64/CTS1_/RTS1_/CTS0_/CLKS1
P65/CLK1
P66/RXD1/SCL1
P67/TXD1/SDA1
[POAT7]
P70/TXD2/SDA2/TA0OUT
P71/RXD2/SCL2/TA0IN/TB5IN
P72/CLK2/TA1OUT/V
P73/CTS2_/RTS2_/TA1IN/V_
P74/TA2OUT/W
P75/TA2IN/W_
P76/TA3OUT
P77/TA3IN
3.3VS_11
R5020 4.7K(J)
R5021 4.7K(J)
BEP_SCL1
BEP_SDA1
503:1C
503:1E
R5015 100(J)
R5016 100(J)
R5012 100(J)
R5018 1.8K(J)
R5017 1.8K(J)
R5013 1.8K(J)
W5016
W5015
BEP_SCL3
BEP_SDA3
501:1E;803:6B
PJ12(DLE I/F)
RESETZ
BEP_TXD3(LMPPWR)
BEPM_LAMPEN
LAMPLITZ
DOOR_OPEN
803:6C
803:4E
501:7E
803:6D
501:7E
ASICREADY
803:6B
RM503 100(J)
RM502 100(J)
RM504 100(J)
RM506 1.8K(J)
RM501 10K(J)
RM505 1.8K(J)
[RMX4A]
[TP] DP505
[TP] DP506
[TP] DP507
94TB-B
W5004 0(X)
W5002
W5001
W5003 0(X)
BEP_SCL0
BEP_SDA0
306:5B;501:1D
NOT MOUNT W5005
NOT MOUNT W5006
94TB-A
BEP_SCL2
BEP_SDA2
306:5A
FL501 220ohm
306:5B;501:8C BEP_SCL0
306:5B;501:8C BEP_SDA0
NOT MOUNT W5014
NOT MOUNT W5013
501:8A;803:6B BEP_SCL3
501:8B;803:6B BEP_SDA3
NOT MOUNT W5018
W5019
NOT MOUNT
BEP_SCL20
BEP_SDA20
W5007
W5008
W5012
W5011
NOT MOUNT W5010
W5009
NOT MOUNT
804:8D BEPM_SCL_AB
804:8E BEPM_SDA_AB
W5017
RST [L34XX] IC502
VDD
VSS
NC
OUT
PST3427
C5002 10V 1uF(Z)
C5003 470nF(K)
R5019 10K(J)
R5014 100(J)
SUB_RESET1
306:2B;500:2C
EEPROM [MSEE32K8] IC503
SDA
SCL
A0
A1
NC
WP
[Vcc]
[Vss]
AT24C256N-10SJ-2.7
R5011 100(J)
R5010 100(J)
C5001 10V 1uF(Z)
D_GND
501:8B BEPM_LAMPEN
501:8B DOOR_OPEN
& [7SH08] IC504
LAMPEN
803:6D
TC7SH08FU(TE85L)
C5004 100nF(Z) 25V
46HM94/52HM94/62HM94
DIGITAL (SUB_MICOM_2)
SH.NO.
501

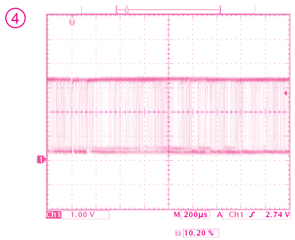


46HM94/52HM94/62HM94 SH.NO.
DIGITAL (SUB_MICOM_3) 502





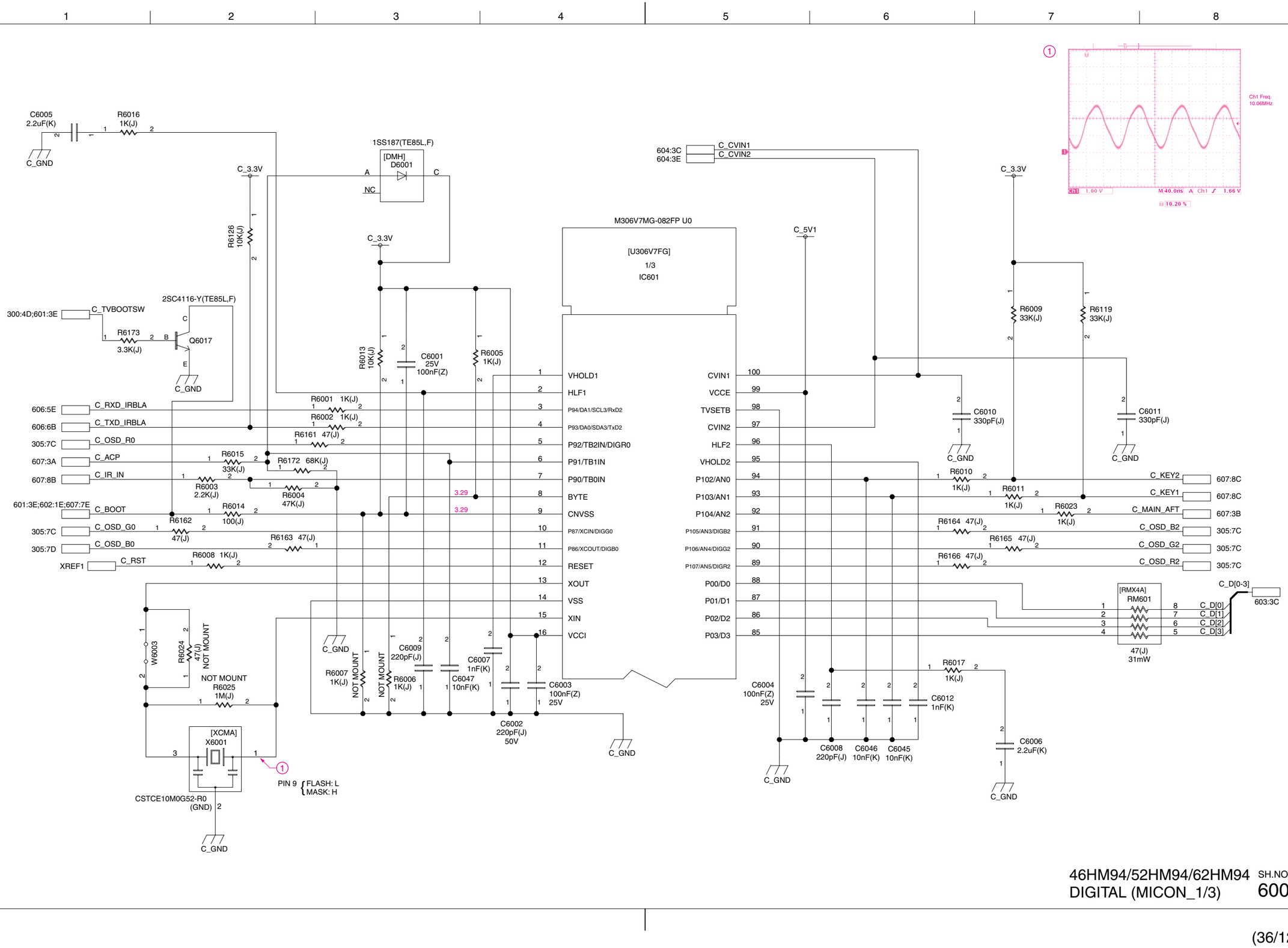




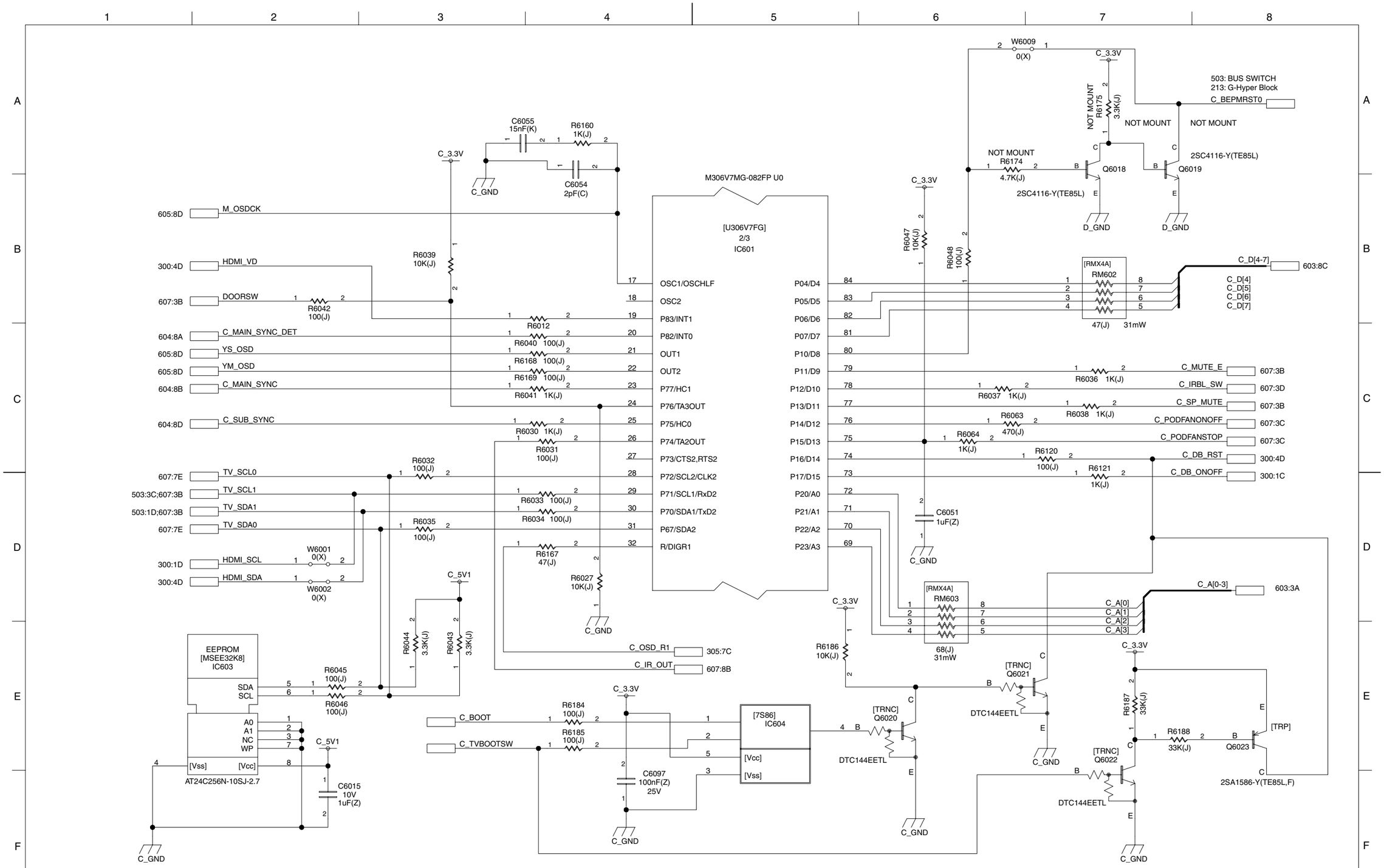
C_5V1
2SC4116-Y(TE85L,F)
R5029 3.9K(J)
4.6V
Q5007 4.0V
R5030 47K(J)
R5022 1K(J)
C5008 0.01U
D_GND
R5028 270(J)
R5027 2.2K(J)
R5025 27K(J)
[TRP]
Q5004
Q5006
2SA1586-Y (TE85L,F)
R5026 27K(J) 63mW
R5023 270(J)
R5024 2.2K(J)
Q5003
Q5005
605:8C I2C1_CNT
501:6A BEP_SCL1
3.3VS_11
TV_SCL1
BUS SWITCH [CL1G125] IC506
OE
A
Y
[VCC]
[GND]
Q5001 2SK2035 (TE85L)
[MFN]
[SBD]
D5001 1SS388(TPH3,F)
10V 1uF(Z) C5009
601:2D;607:3B TV_SDA1
Q5002 2SK2035(TE85L)
BUS SWITCH [CL1G125] IC505
D5002 1SS388(TPH3,F)
10V 1uF(Z) C5010
BUS SWITCH [CL1G125] IC507
C_BEPMRST0
601:8A
C_BEPMRST
306:1C
10V 1uF(Z) C5011

46HM94/52HM94/62HM94
DIGITAL (OSD_MICON_4/4)

SH.NO.
503

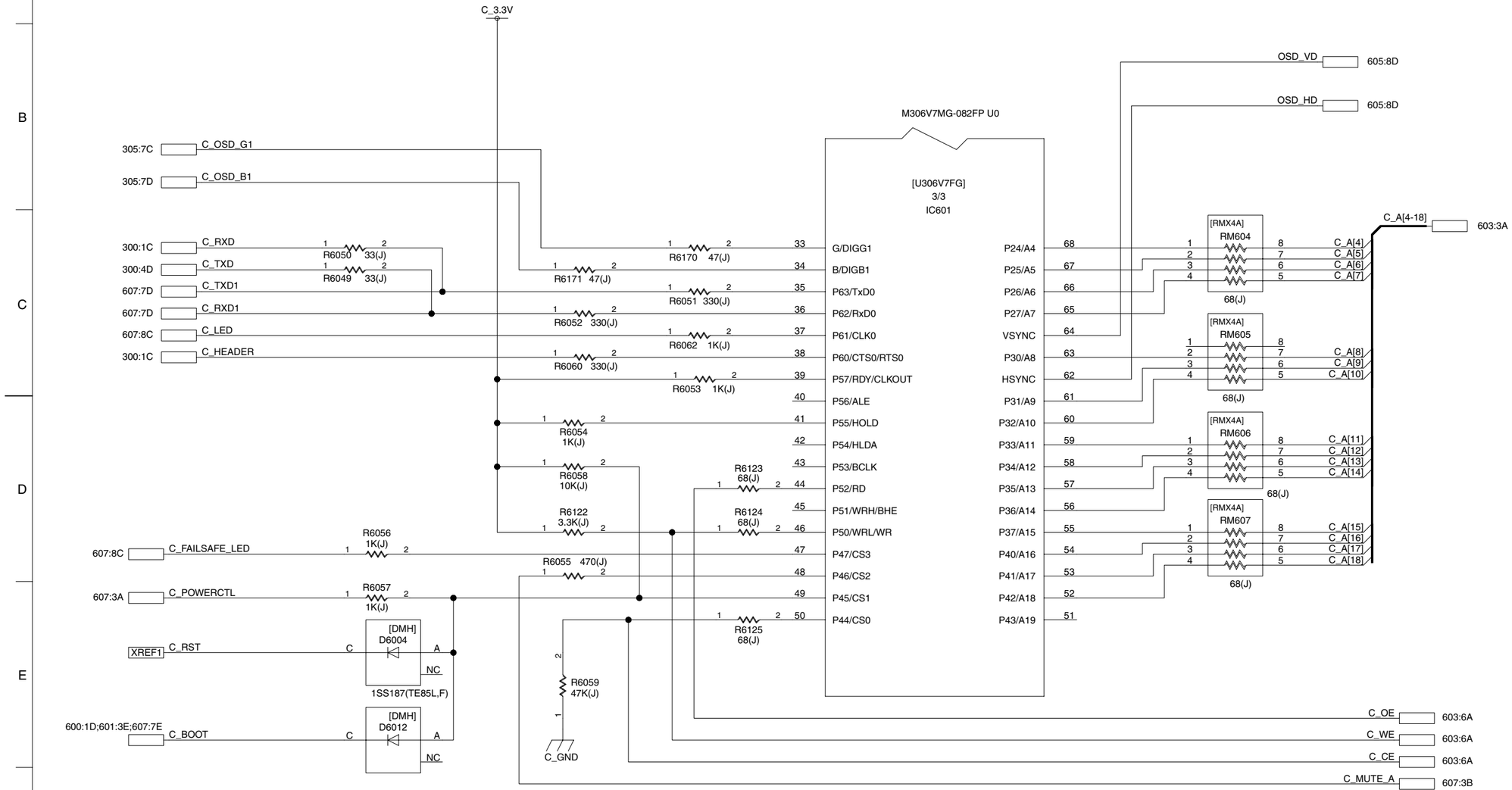


46HM94/52HM94/62HM94 SH.NO.
DIGITAL (MICON_1/3) 600

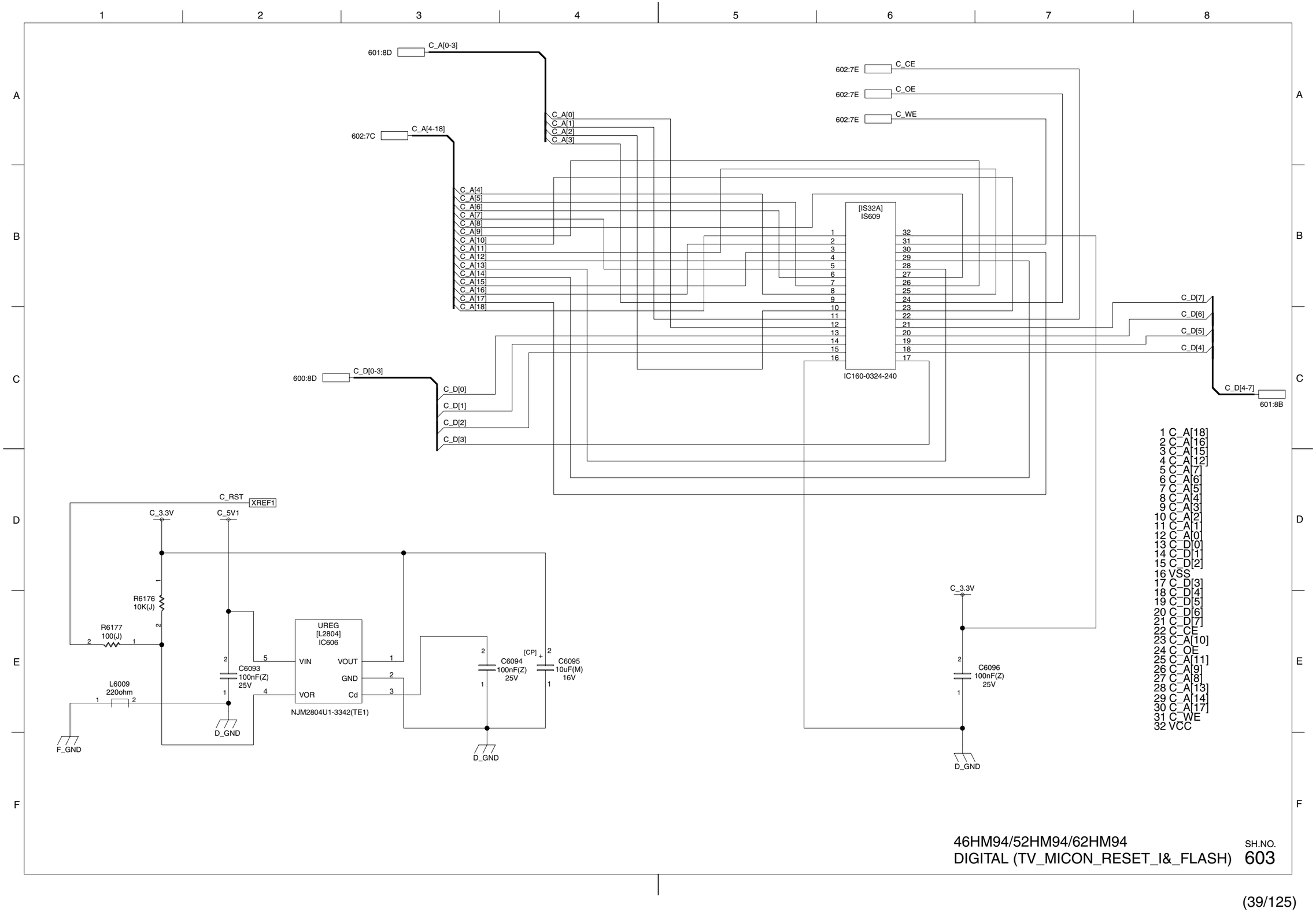


46HM94/52HM94/62HM94
DIGITAL (MICON_2/3)

SH.NO.
601

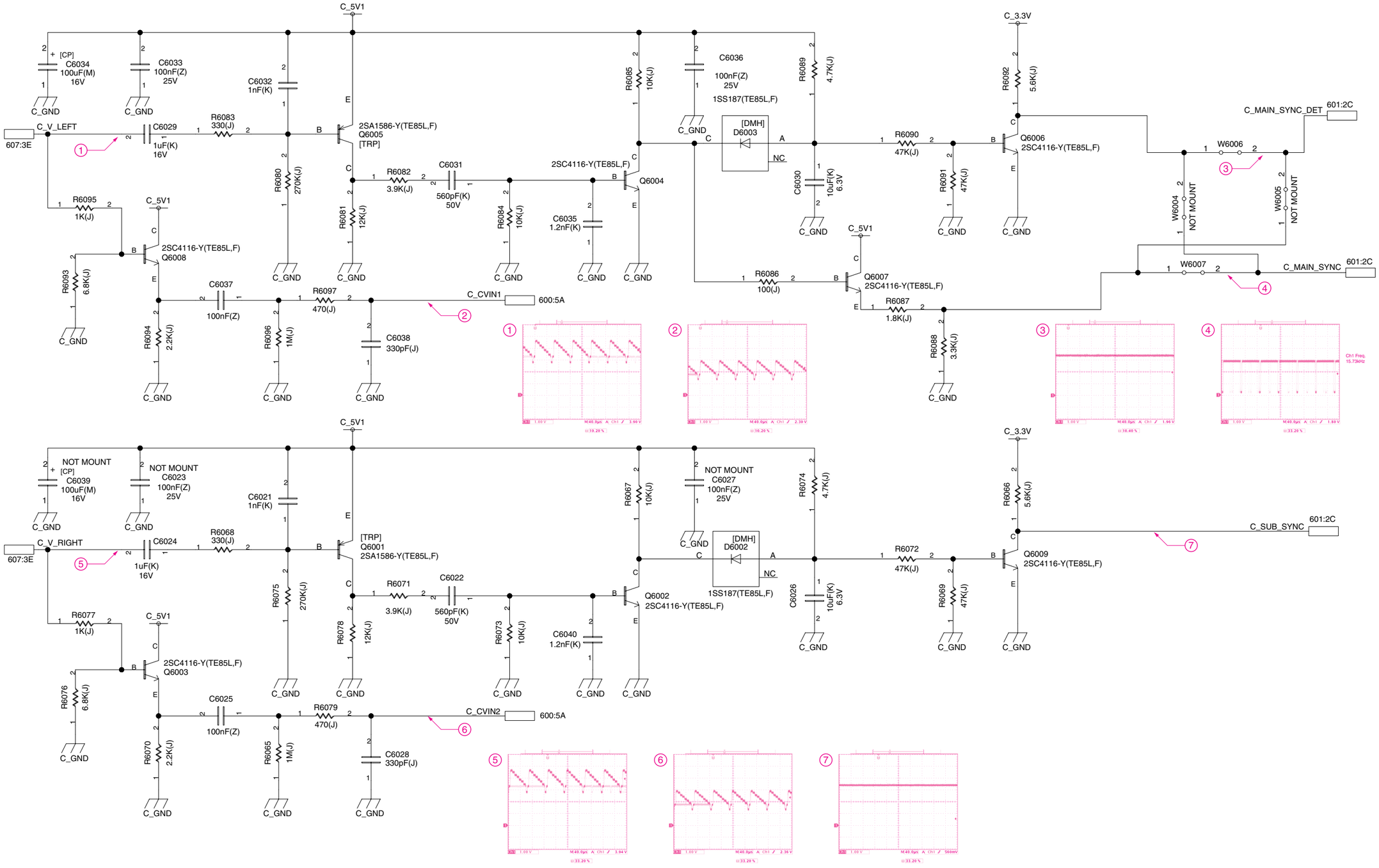


46HM94/52HM94/62HM94 SH.NO.
DIGITAL (MICON_3/3) 602



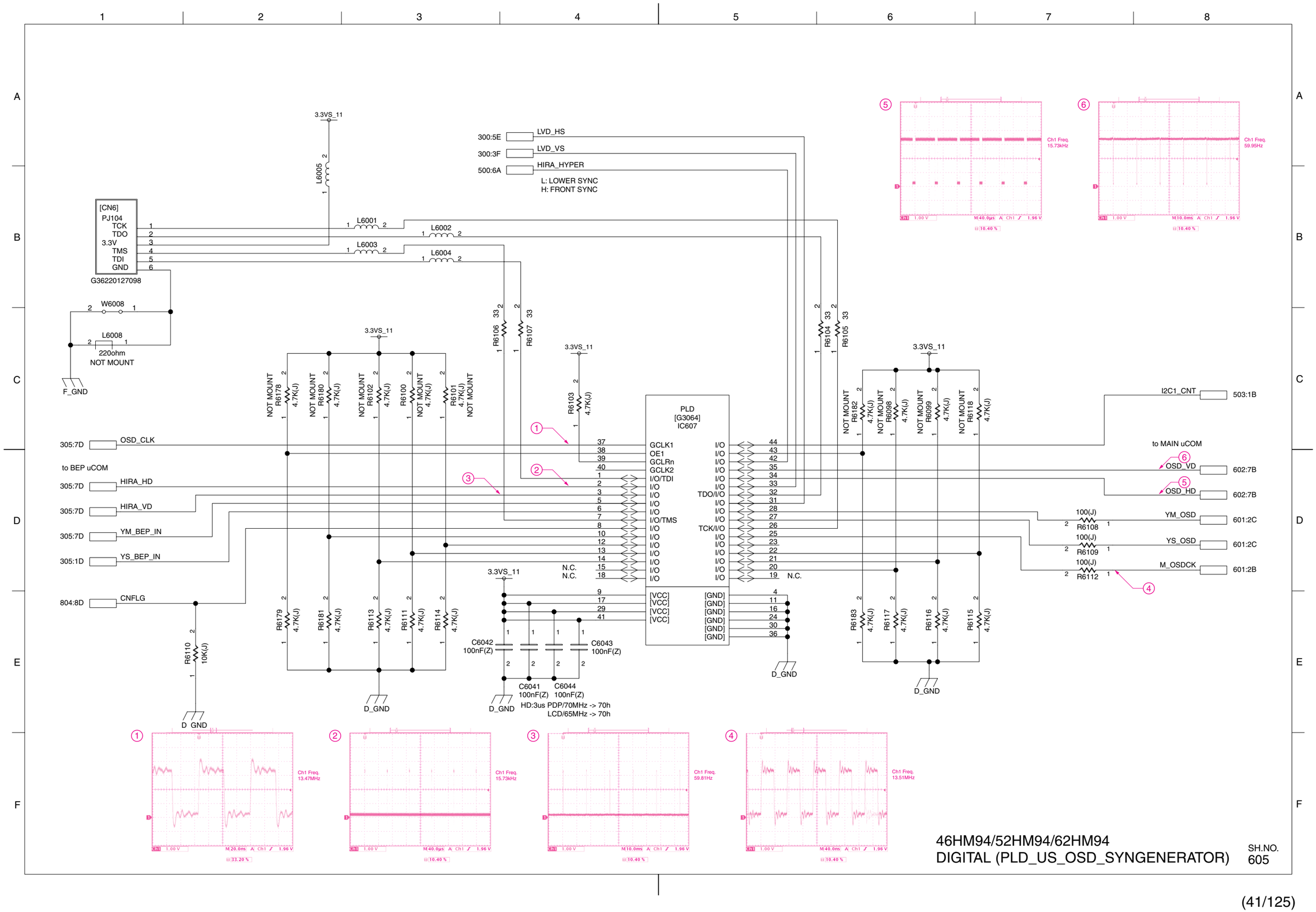
46HM94/52HM94/62HM94
DIGITAL (TV_MICON_RESET_I&_FLASH)

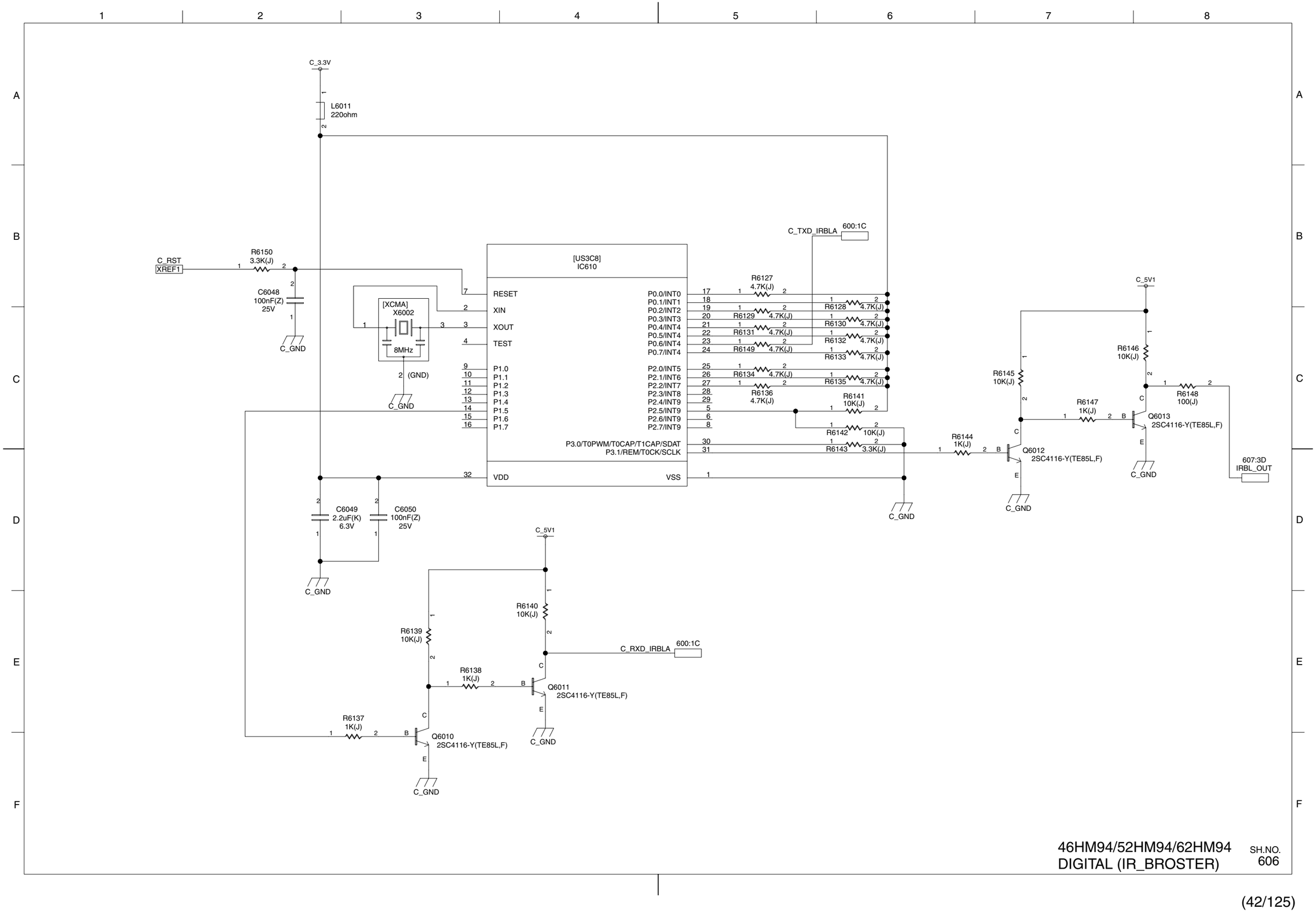
SH.NO. 603



46HM94/52HM94/62HM94
DIGITAL (SYNDETECT)

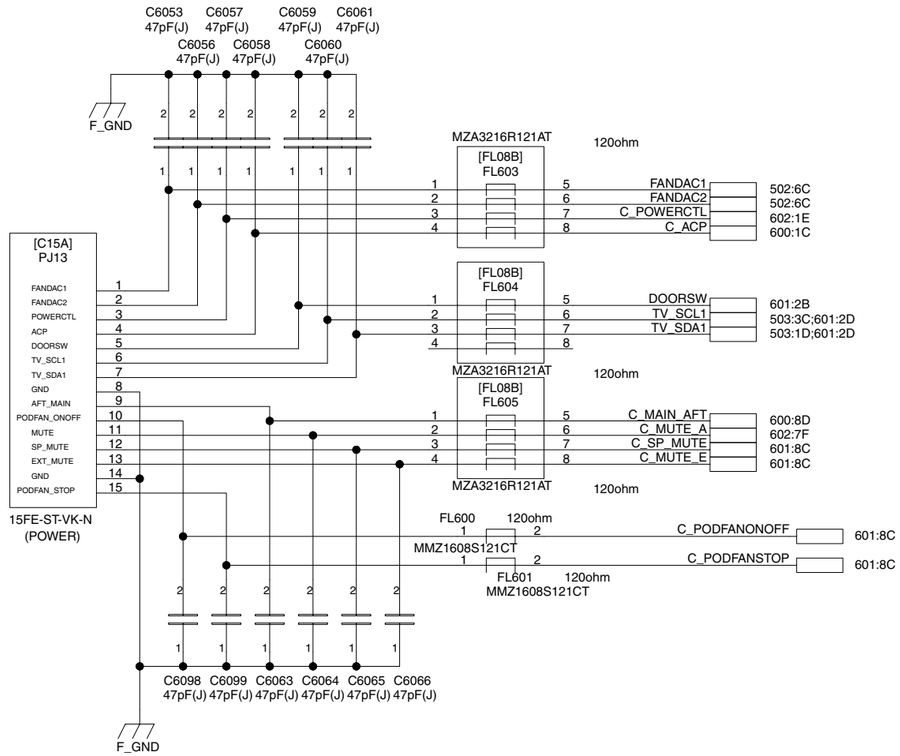
SH.NO.
604

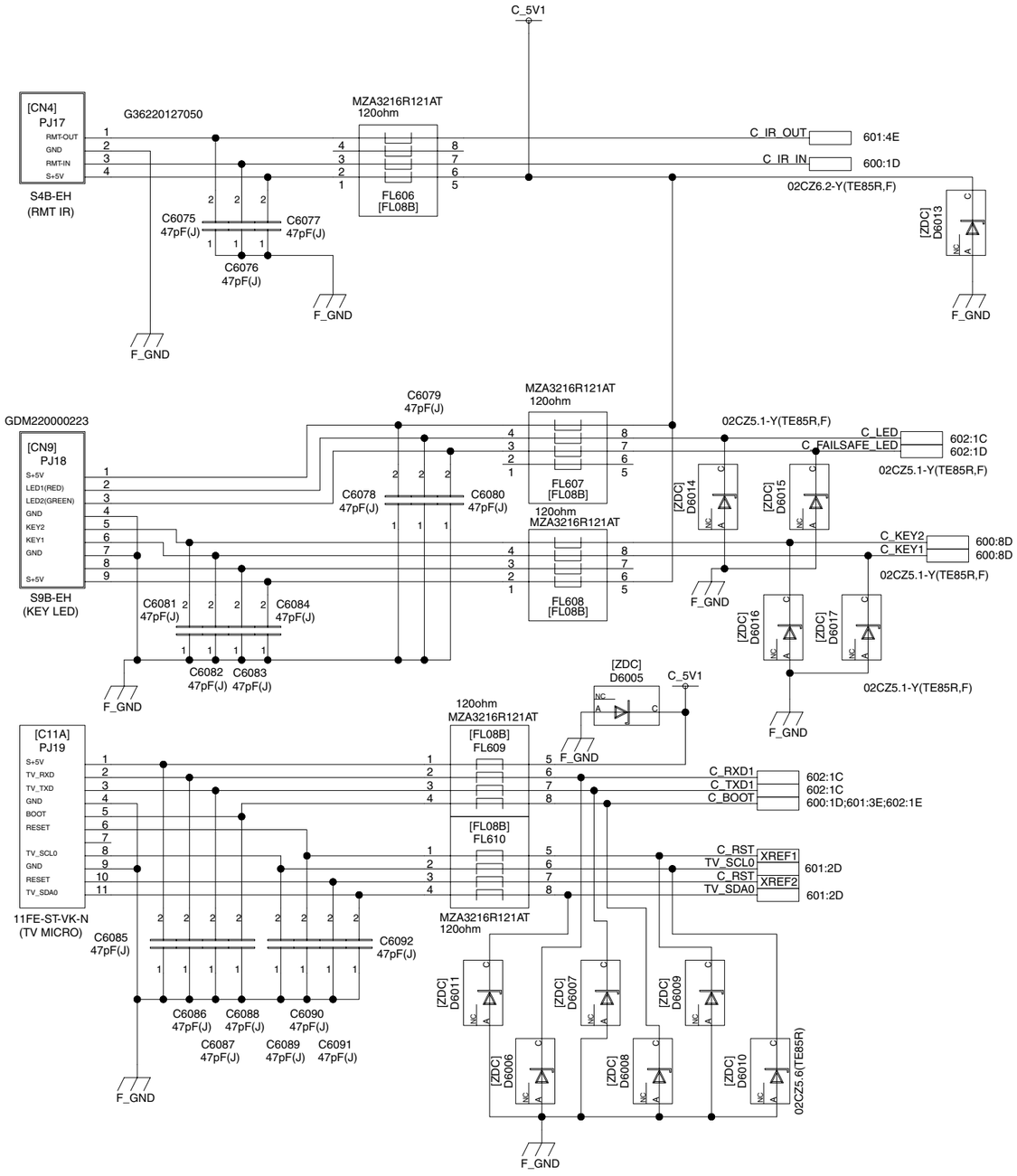

3.3VS_11
L6005
[CN6]
PJ104
TCK
TDO
3.3V
TMS
TDI
GND
G36220127098
L6001
L6002
L6003
L6004
300:5E
LVD_HS
300:3F
LVD_VS
500:6A
HIRA_HYPER
L: LOWER SYNC
H: FRONT SYNC
W6008
L6008
220ohm
NOT MOUNT
F_GND
R6106 33
R6107 33
R6104 33
R6105 33
NOT MOUNT R6178 4.7K(J)
NOT MOUNT R6180 4.7K(J)
NOT MOUNT R6102 4.7K(J)
R6100 4.7K(J)
NOT MOUNT R6101 4.7K(J)
R6103 4.7K(J)
PLD
[G3064]
IC607
305:7D
OSD_CLK
to BEP uCOM
305:7D
HIRA_HD
305:7D
HIRA_VD
305:7D
YM_BEP_IN
305:1D
YS_BEP_IN
804:8D
CNFLG
GCLK1
OE1
GCLRn
GCLK2
I/O/TDI
I/O
I/O/TMS
N.C.
[VCC]
[GND]
TDO/I/O
TCK/I/O
R6110 10K(J)
R6179 4.7K(J)
R6181 4.7K(J)
R6113 4.7K(J)
R6111 4.7K(J)
R6114 4.7K(J)
C6042 100nF(Z)
C6043 100nF(Z)
C6041 100nF(Z)
C6044 100nF(Z)
HD:3us PDP/70MHz -> 70h
LCD/65MHz -> 70h
D_GND
NOT MOUNT R6182 4.7K(J)
NOT MOUNT R6098 4.7K(J)
NOT MOUNT R6099 4.7K(J)
NOT MOUNT R6118 4.7K(J)
R6183 4.7K(J)
R6117 4.7K(J)
R6116 4.7K(J)
R6115 4.7K(J)
I2C1_CNT
503:1B
to MAIN uCOM
OSD_VD
602:7B
OSD_HD
602:7B
100(J) R6108
YM_OSD
601:2C
100(J) R6109
YS_OSD
601:2C
100(J) R6112
M_OSDCK
601:2B
Ch1 Freq. 15.73kHz
Ch1 Freq. 59.95Hz
Ch1 Freq. 13.47MHz
Ch1 Freq. 15.73kHz
Ch1 Freq. 59.81Hz
Ch1 Freq. 13.51MHz
46HM94/52HM94/62HM94
DIGITAL (PLD_US_OSD_SYNGENERATOR)
SH.NO.
605



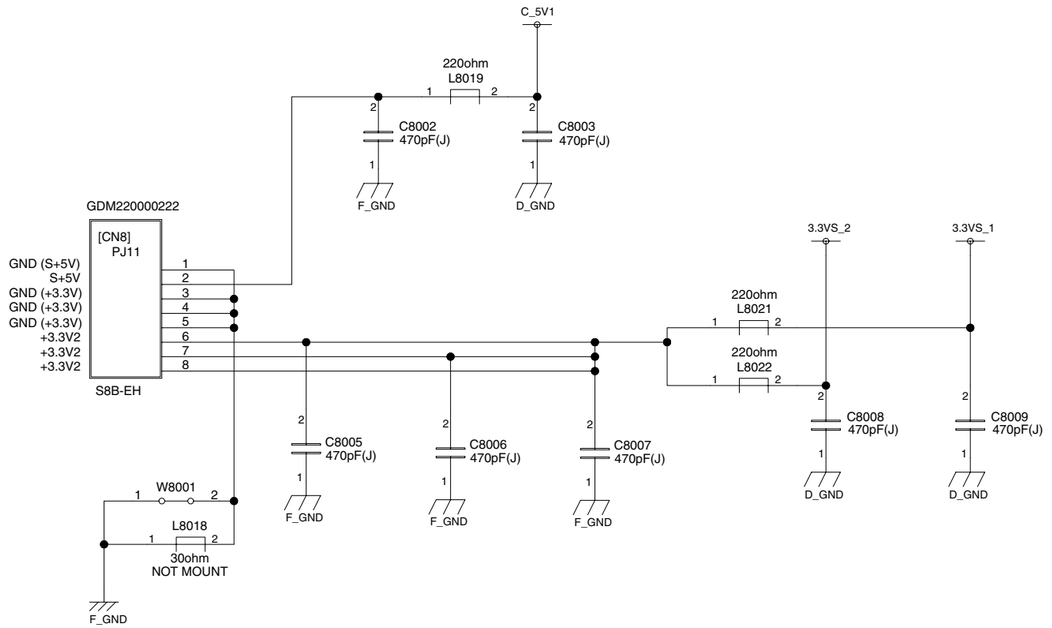
46HM94/52HM94/62HM94
DIGITAL (IR_BROSTER)

SH.NO.
606

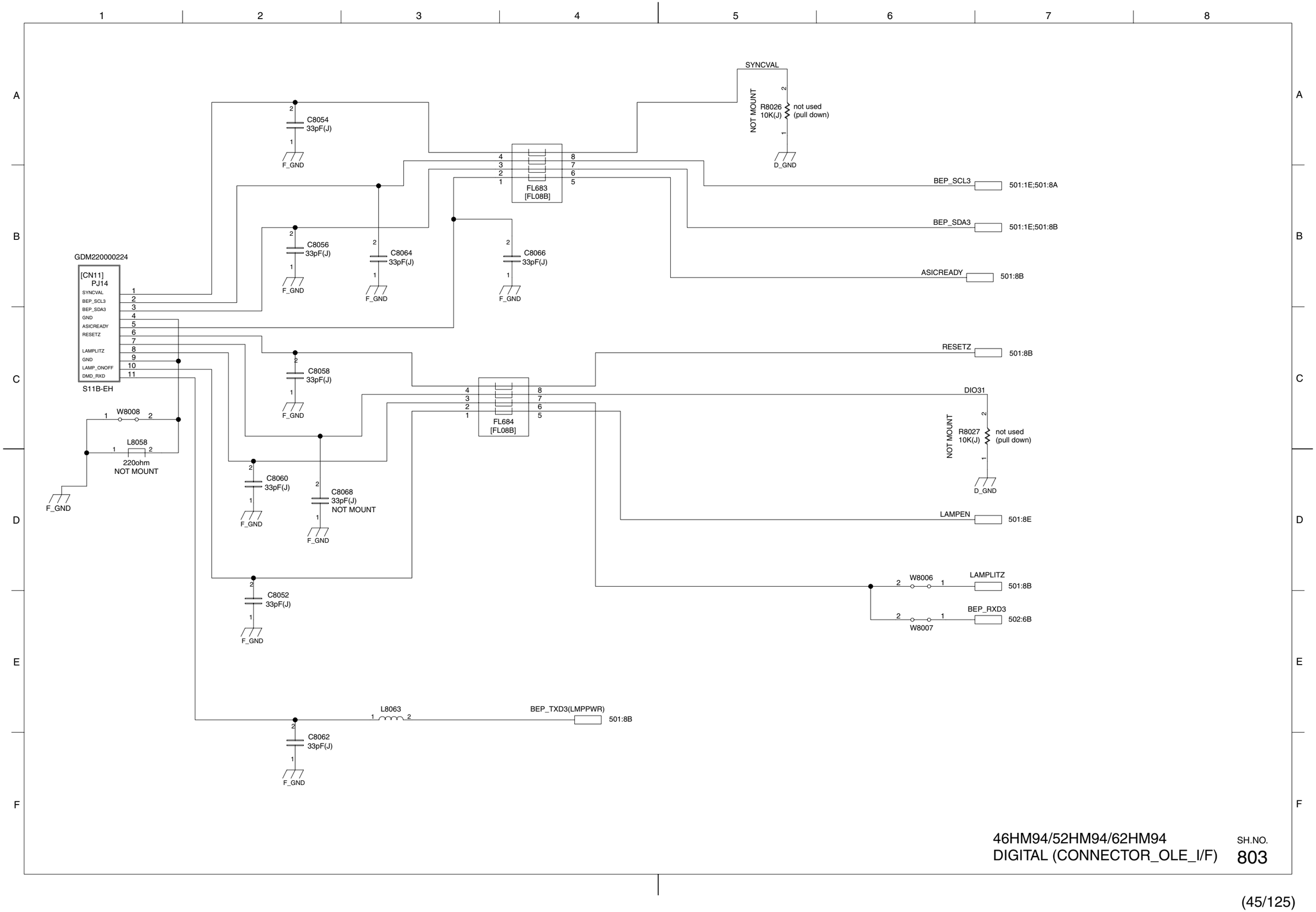




46HM94/52HM94/62HM94 SH.NO.
DIGITAL (CONNECTOR) 607

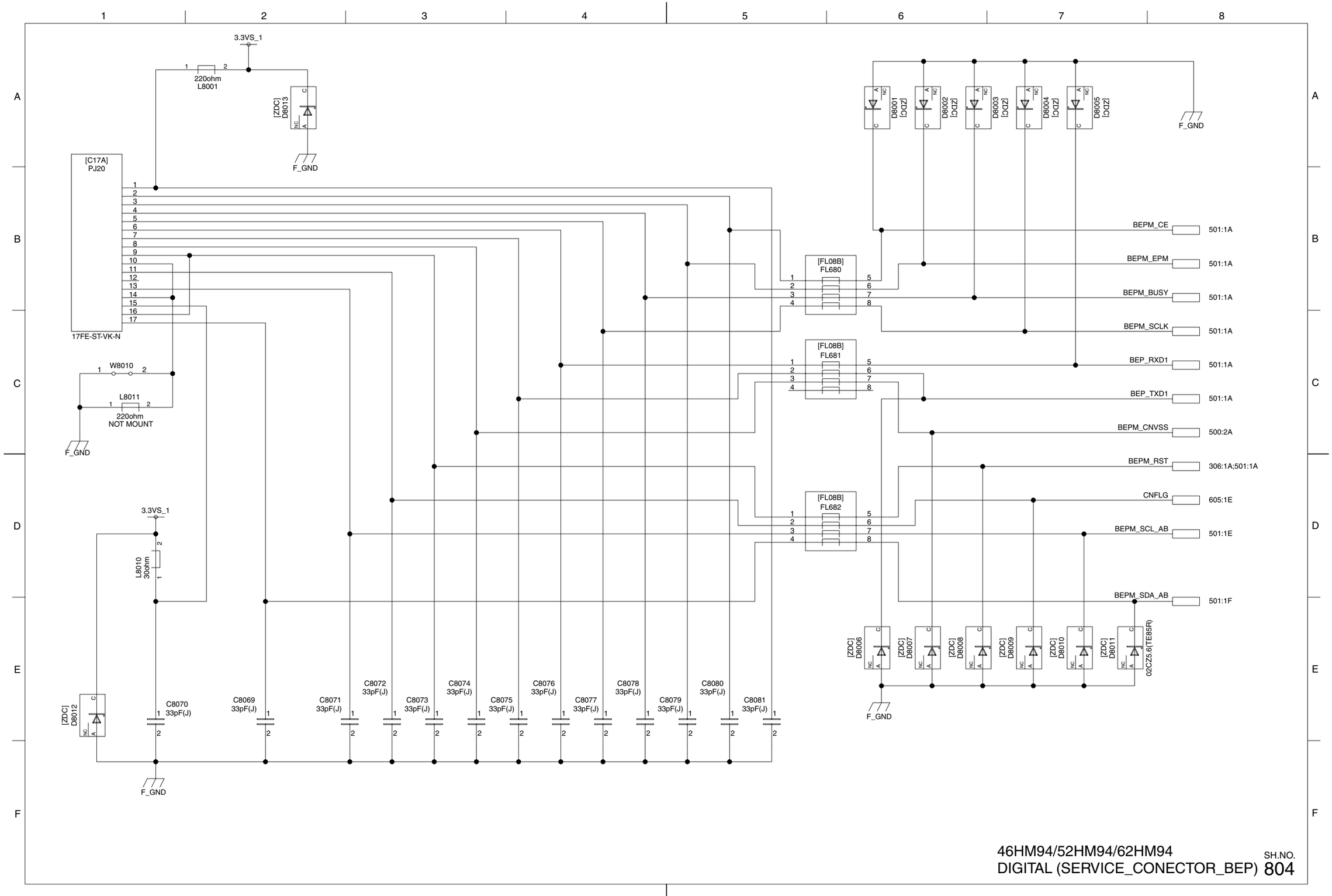


46HM94/52HM94/62HM94 SH.NO.
DIGITAL (POWER_CONNECTOR) 800



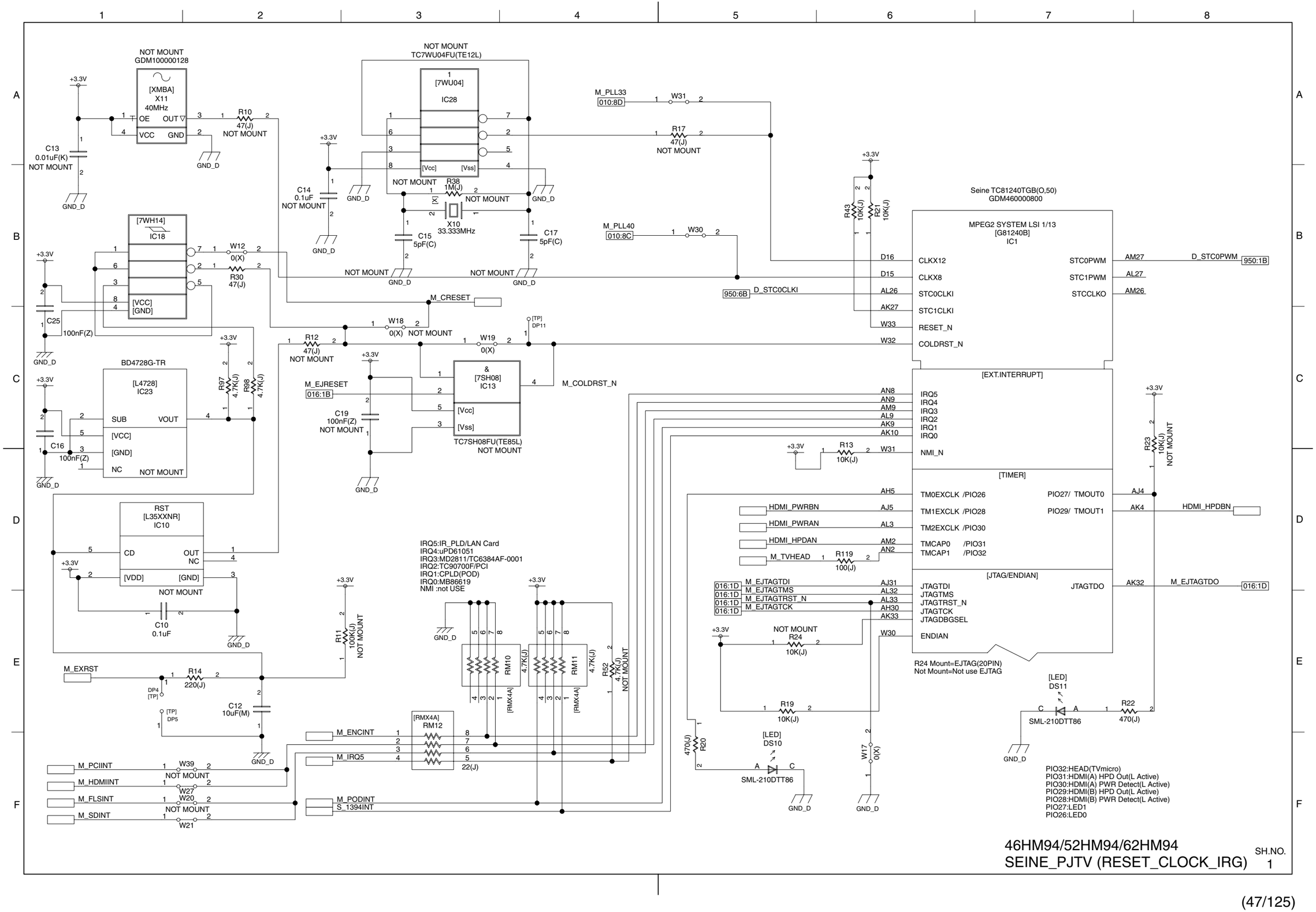
46HM94/52HM94/62HM94
DIGITAL (CONNECTOR_OLE_I/F)

SH.NO.
803



46HM94/52HM94/62HM94
DIGITAL (SERVICE_CONECTOR_BEP)

SH.NO. 804



46HM94/52HM94/62HM94
SEINE_PJTV (RESET_CLOCK_IRG)

SH.NO. 1

Seine TC81240TGB(O,50)
GDM460000800

MPEG2 SYSTEM LSI 4/13
[G81240B]
IC1

[SLOW-BUS]

M_SBD12 M_SBD13 M_SBD14 M_SBD15 — 33(J) — RM17 [RMX4A] — M_SBDI12 M_SBDI13 M_SBDI14 M_SBDI15
M_SBD8 M_SBD9 M_SBD10 M_SBD11 — 33(J) — RM18 [RMX4A] — M_SBDI8 M_SBDI9 M_SBDI10 M_SBDI11
M_SBD4 M_SBD5 M_SBD6 M_SBD7 — 33(J) — RM19 [RMX4A] — M_SBDI4 M_SBDI5 M_SBDI6 M_SBDI7
M_SBD0 M_SBD1 M_SBD2 M_SBD3 — 33(J) — RM20 [RMX4A] — M_SBDI0 M_SBDI1 M_SBDI2 M_SBDI3

+3.3V — 4.7K(J)
RM13 [RMX4A]: M_SBDI15 M_SBDI14 M_SBDI13 M_SBDI12
RM14 [RMX4A]: M_SBDI11 M_SBDI10 M_SBDI9 M_SBDI8
RM15 [RMX4A]: M_SBDI7 M_SBDI6 M_SBDI5 M_SBDI4
RM16 [RMX4A]: M_SBDI3 M_SBDI2 M_SBDI1 M_SBDI0

+3.3V — R25 4.7K(J) — R26 22(J) — M_SBACK — 013:5C

M_SBDI15	G33	SBDAT15
M_SBDI14	H33	SBDAT14
M_SBDI13	H32	SBDAT13
M_SBDI12	H31	SBDAT12
M_SBDI11	H30	SBDAT11
M_SBDI10	J30	SBDAT10
M_SBDI9	J31	SBDAT9
M_SBDI8	J32	SBDAT8
M_SBDI7	J33	SBDAT7
M_SBDI6	K33	SBDAT6
M_SBDI5	K32	SBDAT5
M_SBDI4	K31	SBDAT4
M_SBDI3	K30	SBDAT3
M_SBDI2	L30	SBDAT2
M_SBDI1	L31	SBDAT1
M_SBDI0	L32	SBDAT0

R30 — SBACK_N

SBADD25	A32	M_SBAI25
SBADD24	B33	M_SBAI24
SBADD23	B32	M_SBAI23
SBADD22	B31	M_SBAI22
SBADD21	C30	M_SBAI21
SBADD20	C31	M_SBAI20
SBADD19	C32	M_SBAI19
SBADD18	C33	M_SBAI18
SBADD17	D33	M_SBAI17
SBADD16	D32	M_SBAI16
SBADD15	D31	M_SBAI15
SBADD14	D30	M_SBAI14
SBADD13	E29	M_SBAI13
SBADD12	E30	M_SBAI12
SBADD11	E31	M_SBAI11
SBADD10	E32	M_SBAI10
SBADD9	E33	M_SBAI9
SBADD8	F33	M_SBAI8
SBADD7	F32	M_SBAI7
SBADD6	F31	M_SBAI6
SBADD5	F30	M_SBAI5
SBADD4	F29	M_SBAI4
SBADD3	G30	M_SBAI3
SBADD2	G31	M_SBAI2
SBADD1	G32	M_SBAI1
SBWE_N	A31	
SBOE_N	L33	
SBCE7_N	M33	
SBCE6_N	M32	
SBCE5_N	M31	
SBCE4_N	M30	
SBCE3_N	N30	
SBCE2_N	N31	
SBCE1_N	N32	
SBCE0_N	N33	
SBBE1_N	P32	
SBBE0_N	P33	
SBCLK1	P31	
SBCLK0	P30	

[TP] DP42 — 1

+3.3V — R167 1M(J) NOT MOUNT

+3.3V — NOT MOUNT — R166 1M(J)

R34 47(J) — M_SBWE1 — for FLASHROM
R134 47(J) — M_SBOE1 — for FLASHROM
R135 47(J) — M_SBOE2 — for 1394Phy,Enc

[VHC244] IC16
EN1 (1), EN2 (19)
GND_D
W10 2 2
W11 2 4
[0] 1 (18), [1] 1 (16), [2] 1 (14), [3] 1 (12)
[0] 2 (9), [1] 2 (7), [2] 2 (5), [3] 2 (3)
[Vcc] (20) [Vss] (10)
GND_D

R132 47(J) — M_SBWE4 — for IR PLD
R130 47(J) — M_SBWE3 — for SD/SM
R131 47(J) — M_SBWE2 — for 1394 phy, Cp
R136 47(J) — M_SBOE3 — for SD/SM

[RMX4A] RM22 47(J)
M_SBCE6 M_SBCE5 M_SBCE4 M_SBCE3

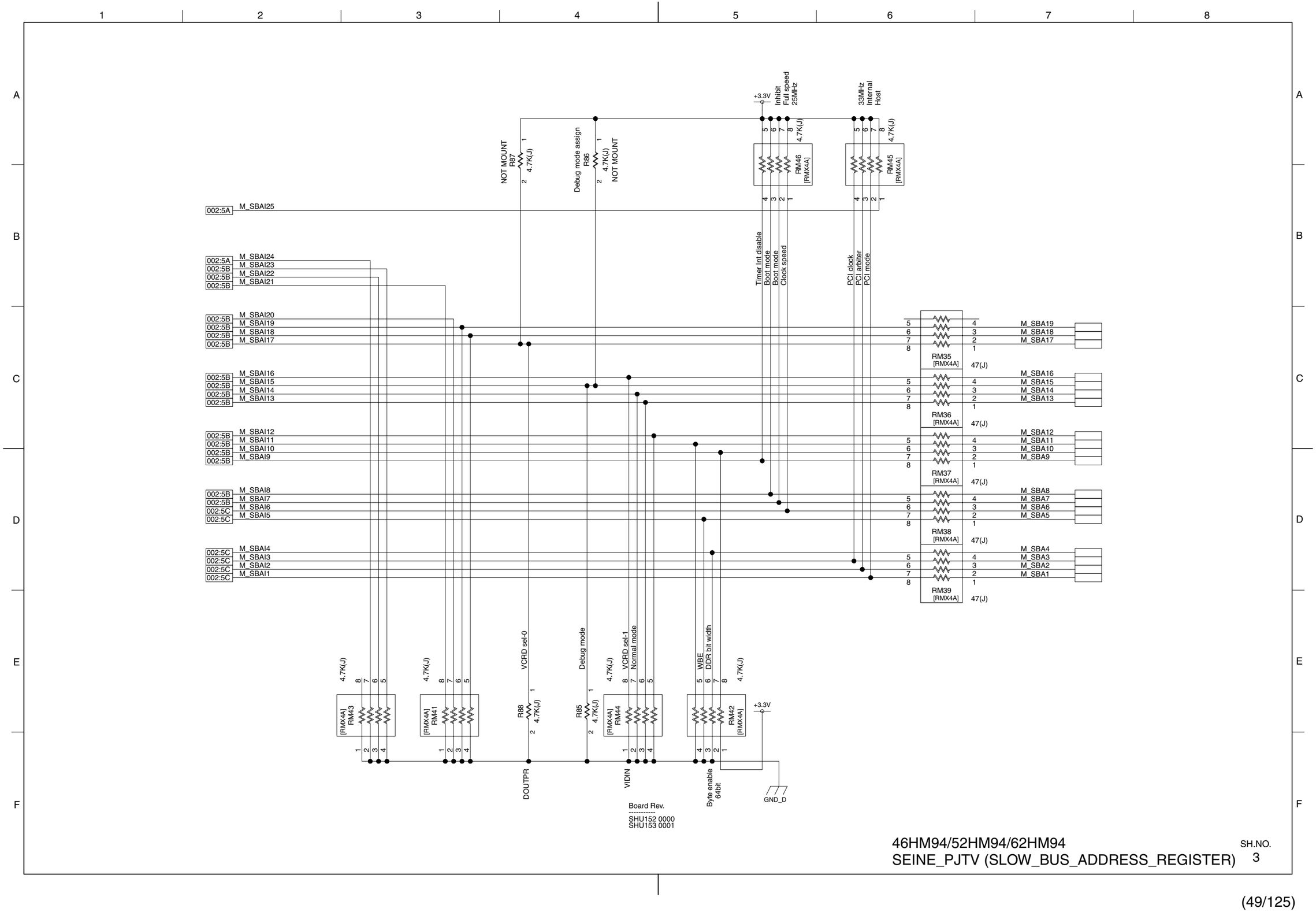
+3.3V — C22 0.1uF — GND_D

[TP] DP10 — 1

CE0:Boot PCB or NAND
CE1:NAND or Boot PCB
CE2:uPD61051GD
CE3:MB86619
CE4:IR PLD
CE5:TC6384AF-0001
CE6:POD PLD
CE7: N/A

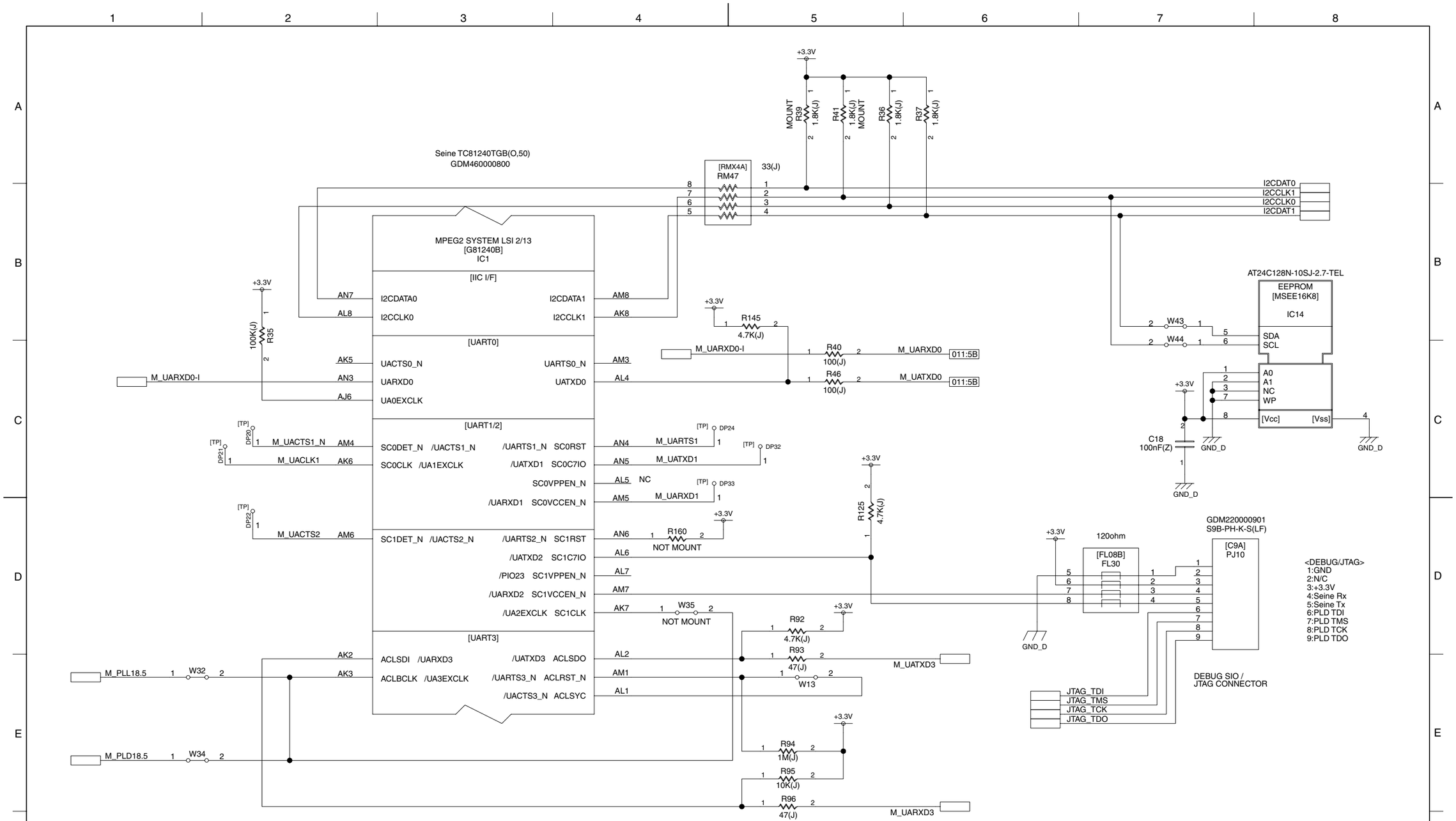
R75 47(J) — M_SBCE2
R16 47(J) — M_EXTROMCE — 006:5C
R29 47(J) — M_BROMCE — 007:3A
R58 47(J) — M_SBBE1 — 013:8C
R59 47(J) — M_SBBE0 — 013:5C
R32 47(J) — for 1394 chips — M_SBCLK0 — 008:5A 013:5C

46HM94/52HM94/62HM94
SEINE_PJTV (SLOW_BUS)
SH.NO. 2

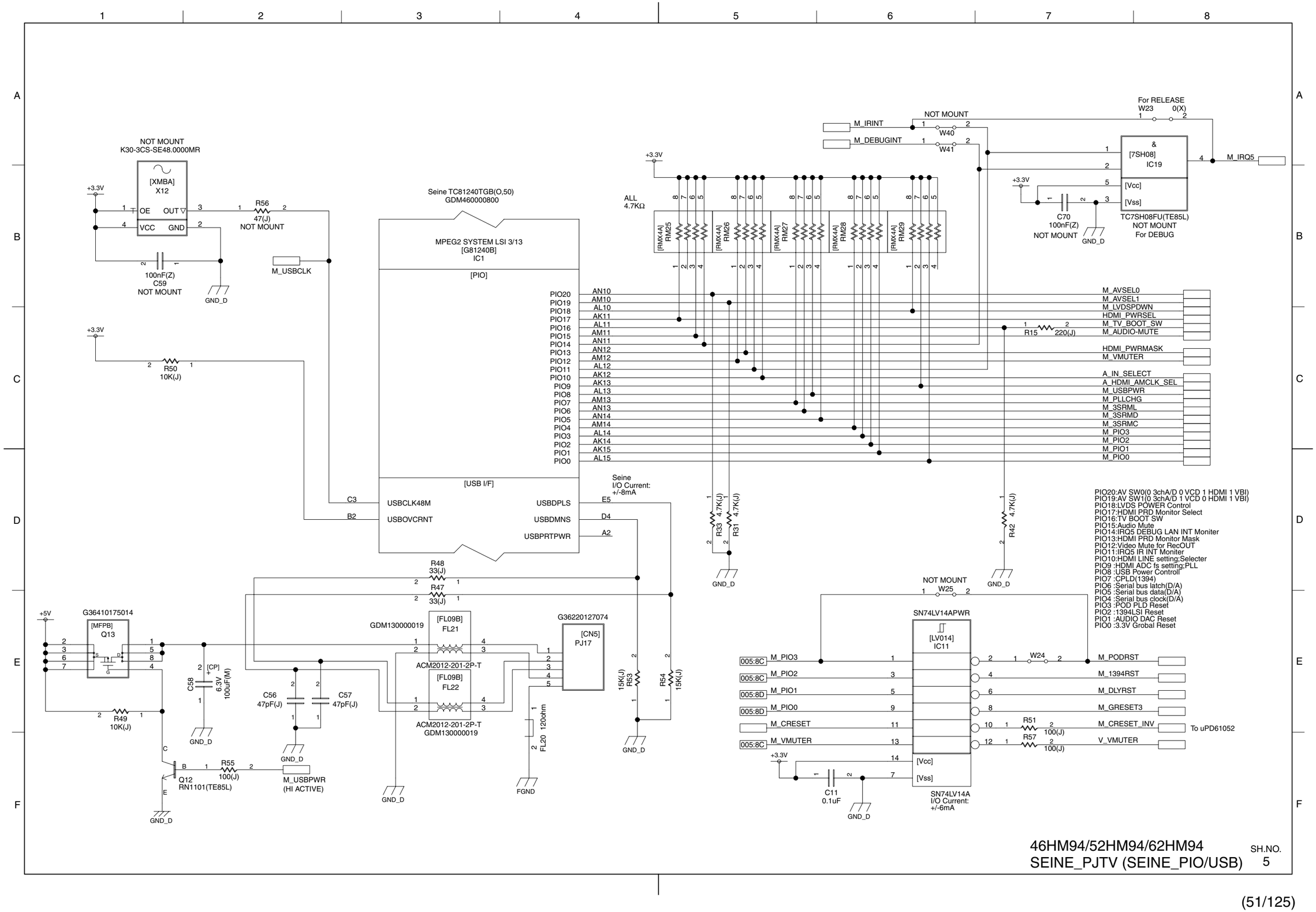


46HM94/52HM94/62HM94
SEINE_PJTV (SLOW_BUS_ADDRESS_REGISTER)

SH.NO. 3

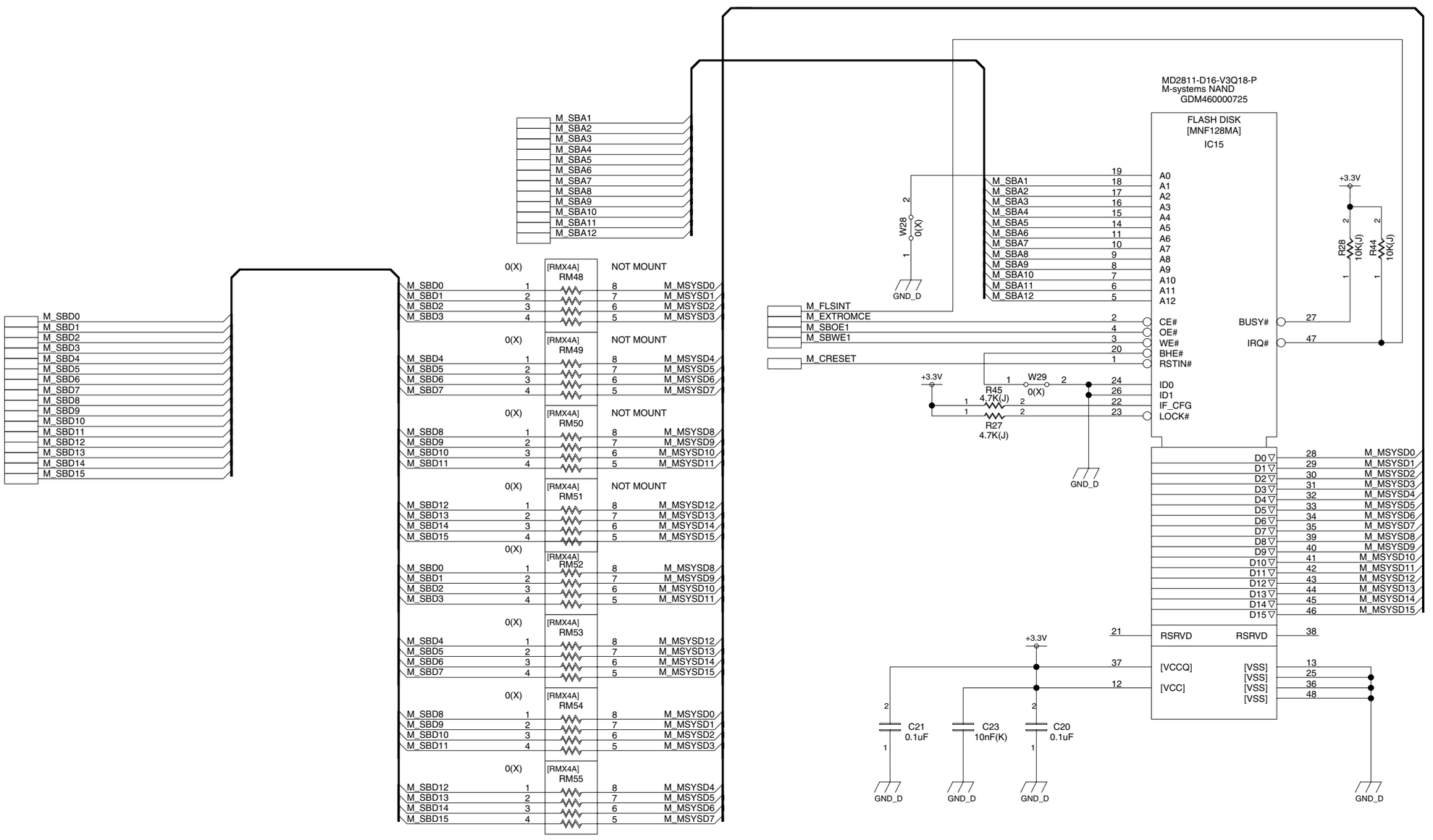


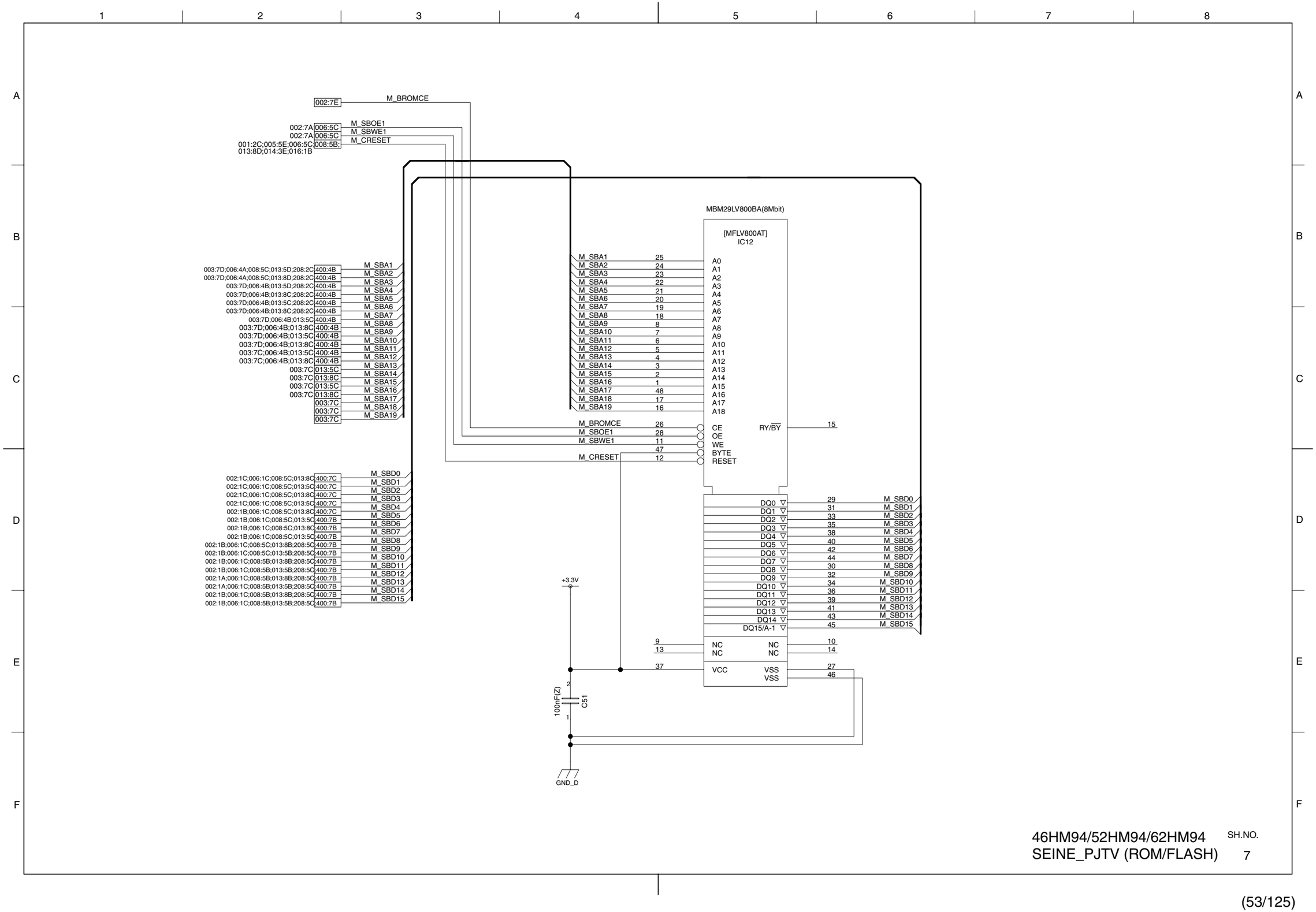
46HM94/52HM94/62HM94 SH.NO.
SEINE_PJTV (SEINE_12C/UART) 4



46HM94/52HM94/62HM94
SEINE_PJTV (SEINE_PIO/USB)

SH.NO. 5


M_SBA1
M_SBA2
M_SBA3
M_SBA4
M_SBA5
M_SBA6
M_SBA7
M_SBA8
M_SBA9
M_SBA10
M_SBA11
M_SBA12
M_SBD0
M_SBD1
M_SBD2
M_SBD3
M_SBD4
M_SBD5
M_SBD6
M_SBD7
M_SBD8
M_SBD9
M_SBD10
M_SBD11
M_SBD12
M_SBD13
M_SBD14
M_SBD15
0(X)
[RMX4A]
RM48
NOT MOUNT
M_MSYSD0
M_MSYSD1
M_MSYSD2
M_MSYSD3
RM49
M_MSYSD4
M_MSYSD5
M_MSYSD6
M_MSYSD7
RM50
M_MSYSD8
M_MSYSD9
M_MSYSD10
M_MSYSD11
RM51
M_MSYSD12
M_MSYSD13
M_MSYSD14
M_MSYSD15
RM52
RM53
RM54
RM55
MD2811-D16-V3Q18-P
M-systems NAND
GDM460000725
FLASH DISK
[MNF128MA]
IC15
W28
GND_D
M_FLSINT
M_EXTROMCE
M_SBOE1
M_SBWE1
M_CRESET
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
CE#
OE#
WE#
BHE#
RSTIN#
ID0
ID1
IF_CFG
LOCK#
+3.3V
R45
4.7K(J)
W29
R27
4.7K(J)
R28
10K(J)
R44
10K(J)
BUSY#
IRQ#
D0
D1
D2
D3
D4
D5
D6
D7
D8
D9
D10
D11
D12
D13
D14
D15
RSRVD
[VCCQ]
[VCC]
[VSS]
C21
0.1uF
C23
10nF(K)
C20
0.1uF



46HM94/52HM94/62HM94 SH.NO.
SEINE_PJTV (ROM/FLASH) 7

GDM450000318
XC95144XL-10TQG144C
[G95144TQ144]
IC17

002:7F	013:5C	M_SBCLK0	30	IO/GCK1	I/O048	68	
	005:2B	M_PLL48	32	IO/GCK2	I/O049	69	
			38	IO/GCK3	I/O050	70	HDMI_PWRAN
			5	IO/GTS1	I/O051	71	HDMI_PWRBN
			6	IO/GTS2	I/O052	74	
			2	IO/GTS3	I/O053	75	
			3	IO/GTS4	I/O054	76	
001:2C;005:5E;006:5C;007:3A; 013:8D;014:3E;016:1B		M_CRESET	143	IO/GSR	I/O055	77	
					I/O056	78	
		V_TCK	67	TCK	I/O057	79	
Fm AVSW		V_TDI2	63	TDI	I/O058	80	
To POD		V_TDI3	122	TDO	I/O059	81	
		V_TMS	65	TMS	I/O060	82	
For BYPASS		V_TDI3I			I/O061	83	
					I/O062	85	
			4	I/O001	I/O063	86	
			7	I/O002	I/O064	87	
002:1B;006:1C;007:3E;013:5B;208:5C	400:7B	M_SBD15	9	I/O003	I/O065	88	
002:1B;006:1C;007:3E;013:8B;208:5C	400:7B	M_SBD14	10	I/O004	I/O066	91	M_UARXD3_SW 004:6E
002:1A;006:1C;007:3D;013:5B;208:5C	400:7B	M_SBD13	11	I/O005	I/O067	92	
002:1A;006:1C;007:3D;013:8B;208:5C	400:7B	M_SBD12	12	I/O006	I/O068	93	
002:1B;006:1C;007:3D;013:5B;208:5C	400:7B	M_SBD11	13	I/O007	I/O069	94	
002:1B;006:1C;007:3D;013:8B;208:5C	400:7B	M_SBD10	14	I/O008	I/O070	95	
002:1B;006:1C;007:3D;013:5B;208:5C	400:7B	M_SBD9	15	I/O009	I/O071	96	
002:1B;006:1C;007:3D;013:8B;208:5C	400:7B	M_SBD8	16	I/O010	I/O072	97	
002:1B;006:1C;007:3D;013:5C	400:7B	M_SBD7	17	I/O011	I/O073	98	M_UATXD3_SW 004:6E
002:1B;006:1C;007:3D;013:8C	400:7B	M_SBD6	19	I/O012	I/O074	100	
002:1B;006:1C;007:3D;013:5C	400:7B	M_SBD5	20	I/O013	I/O075	101	
002:1B;006:1C;007:3D;013:8C	400:7B	M_SBD4	21	I/O014	I/O076	102	
002:1C;006:1C;007:3D;013:5C	400:7C	M_SBD3	22	I/O015	I/O077	103	
002:1C;006:1C;007:3D;013:8C	400:7C	M_SBD2	23	I/O016	I/O078	104	
002:1C;006:1C;007:3D;013:5C	400:7C	M_SBD1	24	I/O017	I/O079	105	
002:1C;006:1C;007:3D;013:8C	400:7C	M_SBD0	25	I/O018	I/O080	106	
	002:8B	M_SBWE4	26	I/O019	I/O081	107	
	002:8C	M_SBCE4	27	I/O020	I/O082	110	
			28	I/O021	I/O083	111	
003:7D;006:4A;007:3B;013:5D;208:2C	400:4B	M_SBA1	31	I/O022	I/O084	112	
003:7D;006:4A;007:3B;013:8D;208:2C	400:4B	M_SBA2	33	I/O023	I/O085	113	
			34	I/O024	I/O086	115	
	009:2B	M_IROUT	35	I/O025	I/O087	116	
	005:6A	M_IRINT	39	I/O026	I/O088	117	
			40	I/O027	I/O089	118	
004:1E		R91 47(J) NOT MOUNT	41	I/O028	I/O090	119	
M_PLD18.5			43	I/O029	I/O091	120	
			44	I/O030	I/O092	121	
			45	I/O031	I/O093	124	
			46	I/O032	I/O094	125	
			48	I/O033	I/O095	126	
			49	I/O034	I/O096	128	
			50	I/O035	I/O097	129	
			51	I/O036	I/O098	130	
			52	I/O037	I/O099	131	
			53	I/O038	I/O100	132	
			54	I/O039	I/O101	133	
			56	I/O040	I/O102	134	
			57	I/O041	I/O103	135	
			58	I/O042	I/O104	136	
			59	I/O043	I/O105	137	
			60	I/O044	I/O106	138	
			61	I/O045	I/O107	139	
			64	I/O046	I/O108	140	
			66	I/O047	I/O109	142	
			8	VCCINT	GND	18	
			42	VCCINT	GND	29	
			84	VCCINT	GND	36	
			141	VCCINT	GND	47	
					GND	62	
			1	VCCIO	GND	72	
			37	VCCIO	GND	89	
			55	VCCIO	GND	90	
			73	VCCIO	GND	99	
			109	VCCIO	GND	108	
			127	VCCIO	GND	114	
					GND	123	
					GND	144	

+3.3V

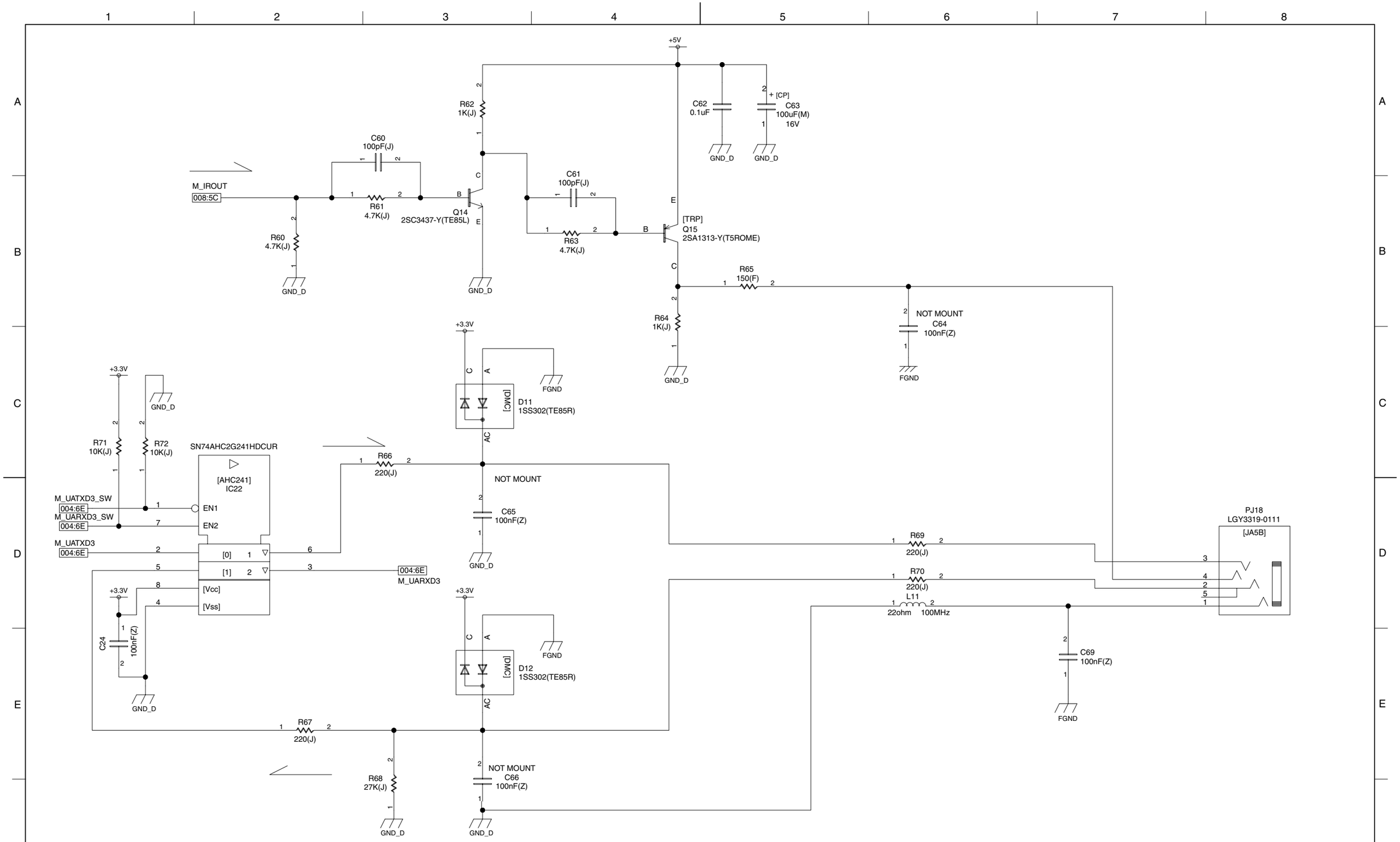
GND_D

+3.3V

100nF(Z) C90 C91 C92 C93 C94 C95 C96 C97 C98 C99

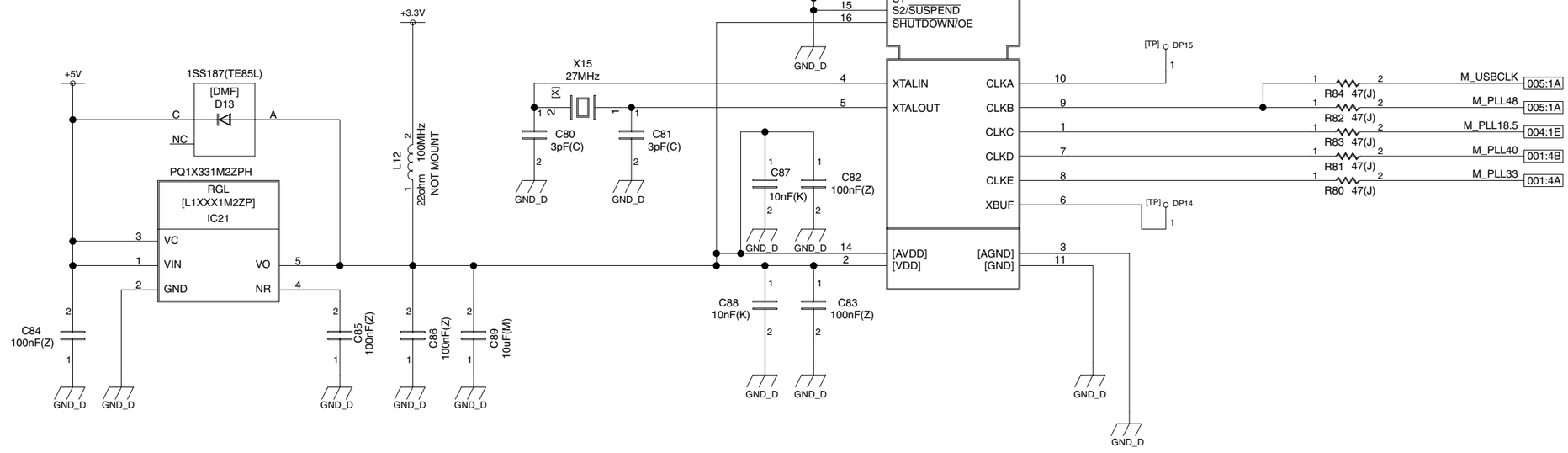
GND_D

46HM94/52HM94/62HM94 SH.NO.
SEINE_PJTV (GUNK_PWM-PLD) 8



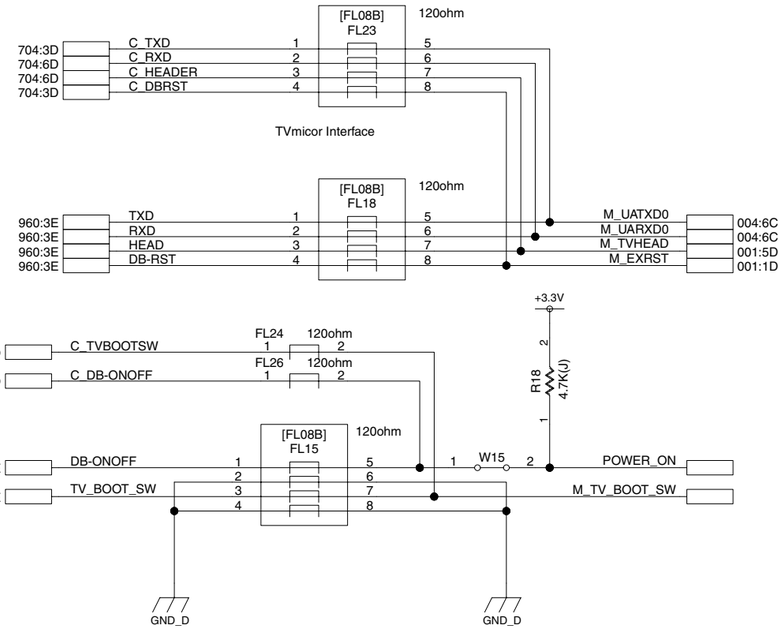
46HM94/52HM94/62HM94
SEINE_PJTV (GLINK_IR-OUT)

SH.NO. 9

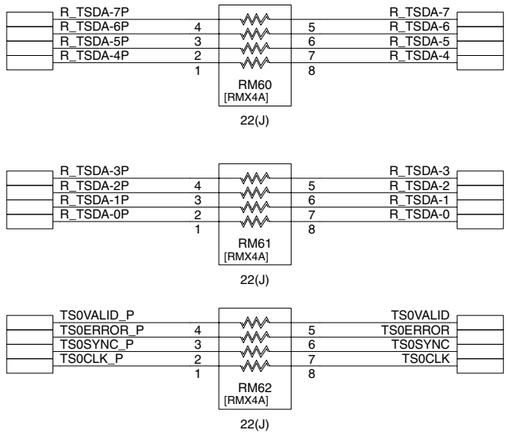


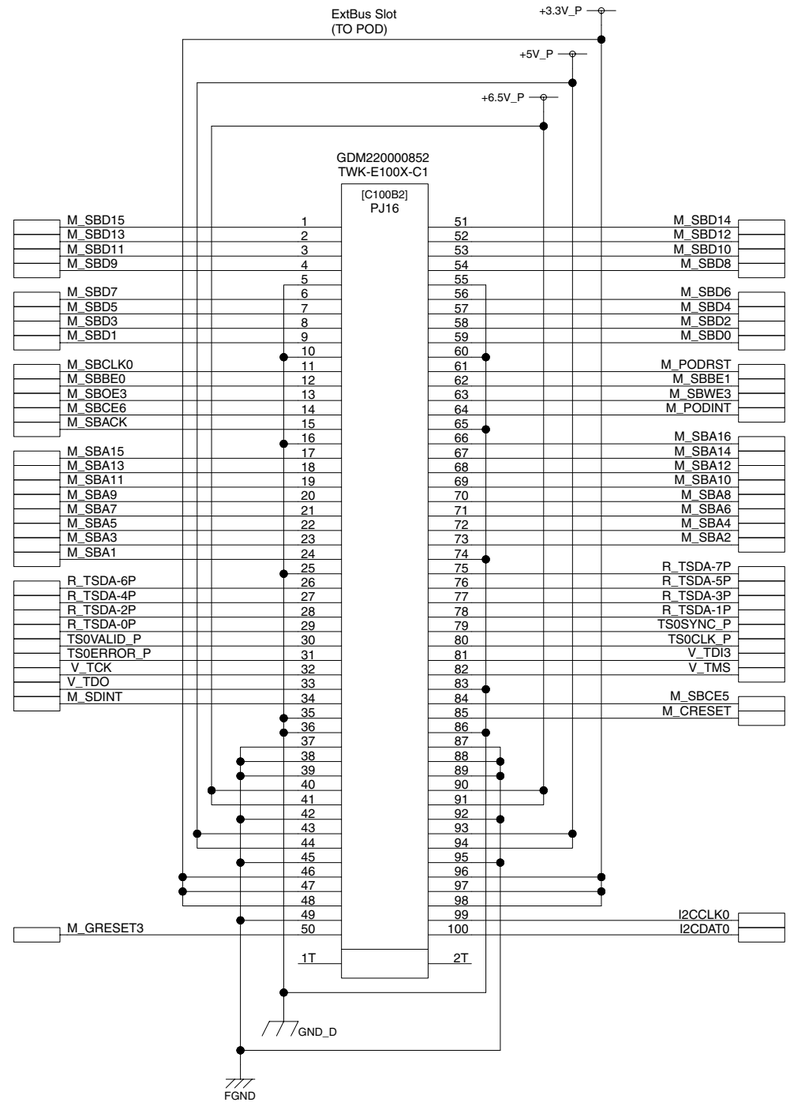
46HM94/52HM94/62HM94
SEINE_PJTV (CLOCK_GENERATOR)

SH.NO. 10



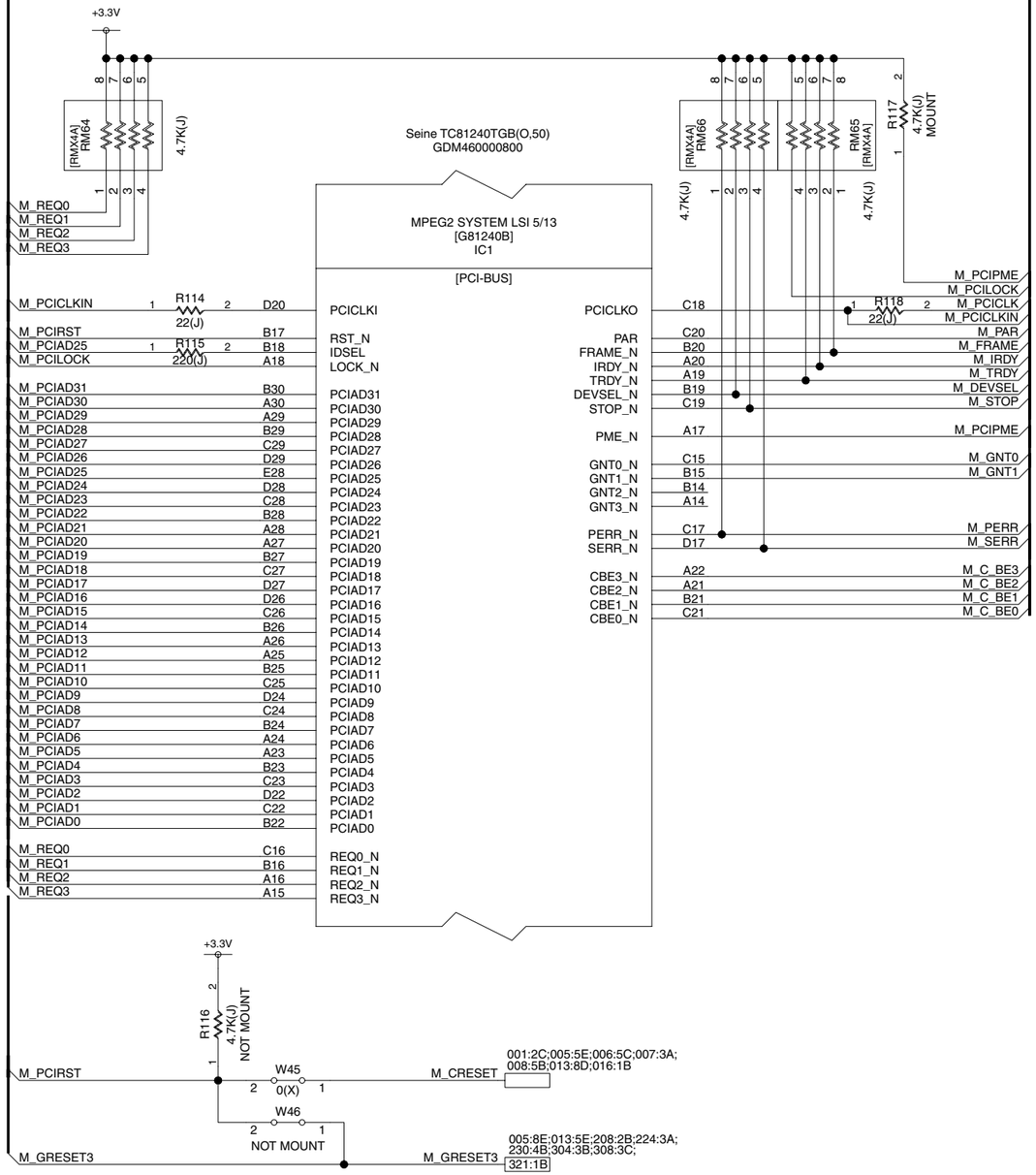
46HM94/52HM94/62HM94 SH.NO.
SEINE_PJTV (TV_MICON_I/F) 11





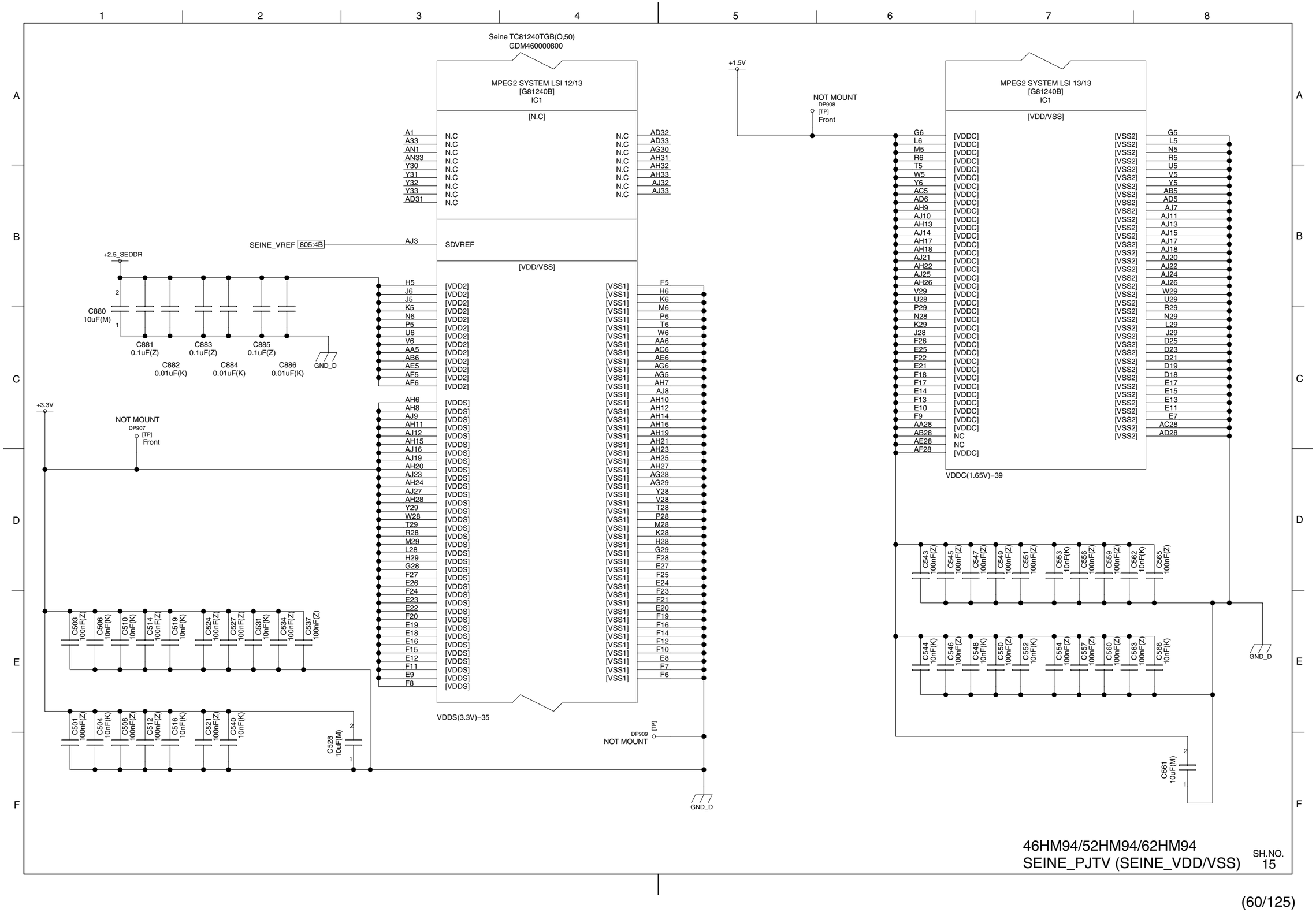
46HM94/52HM94/62HM94
SEINE_PJTV (HOST_BUS_CONNECTOR)

SH.NO.
13



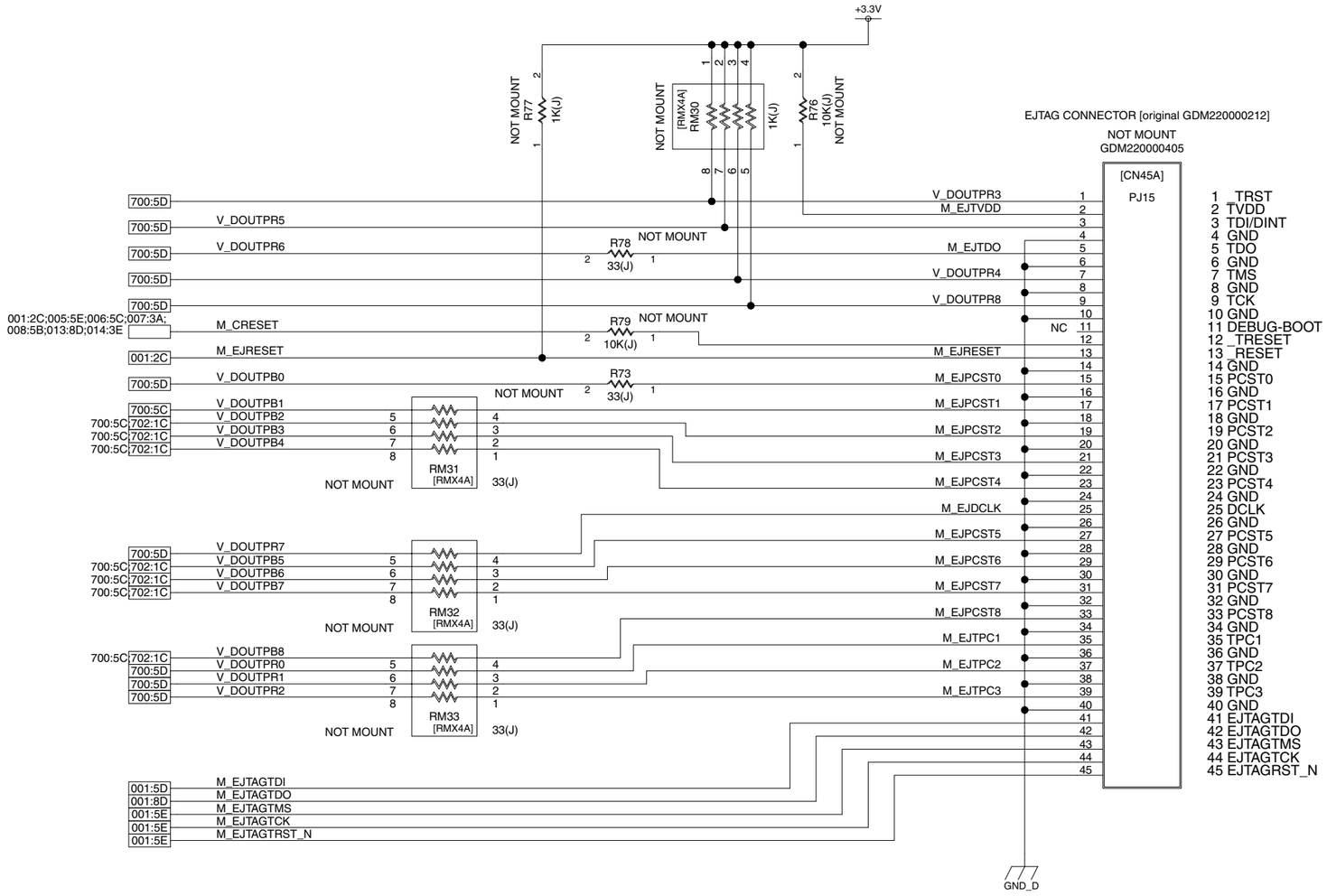
46HM94/52HM94/62HM94
SEINE_PJTV (SEINE_PCI_BUS)

SH.NO. 14



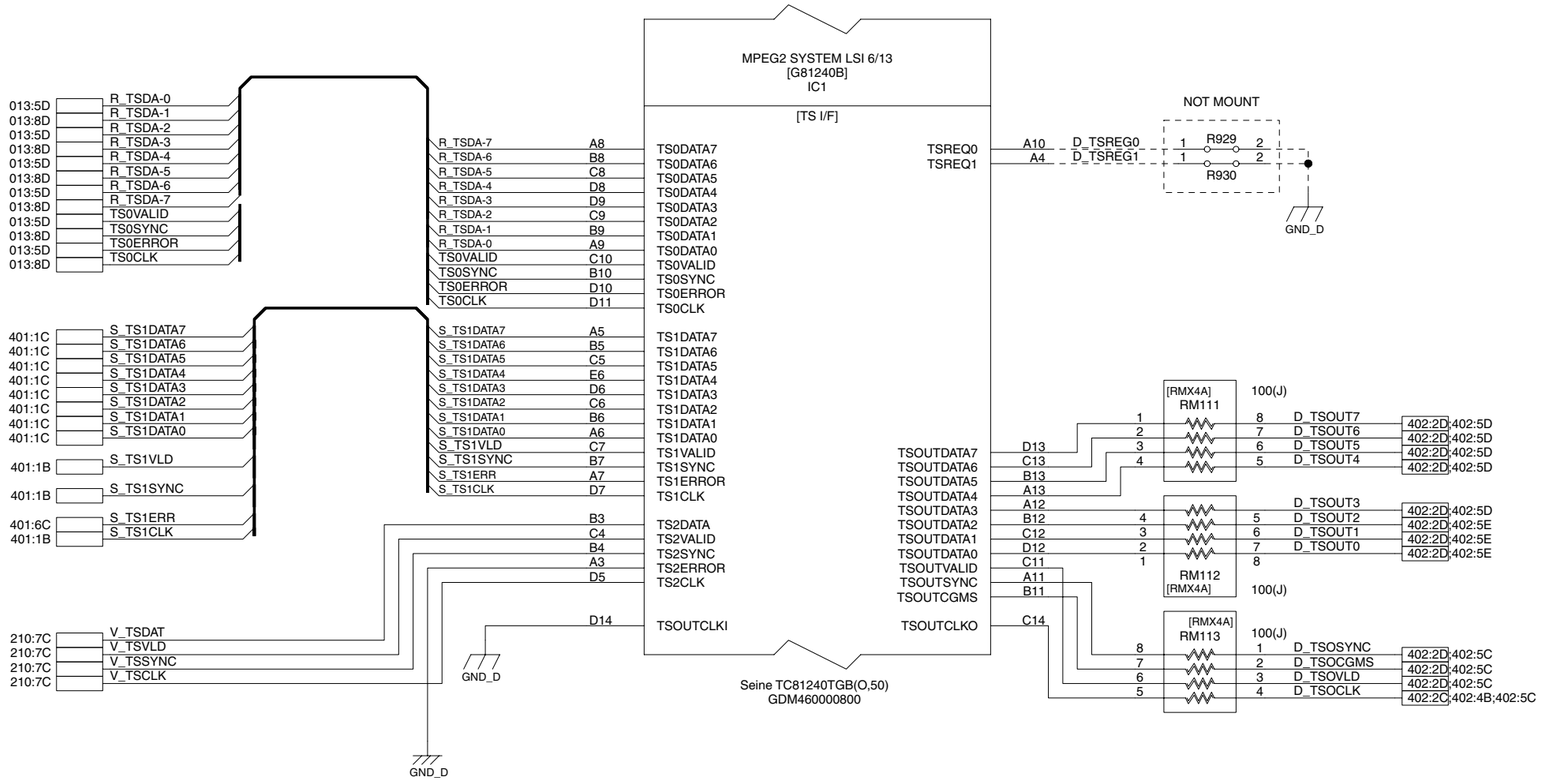
46HM94/52HM94/62HM94
SEINE_PJTV (SEINE_VDD/VSS)

SH.NO. 15

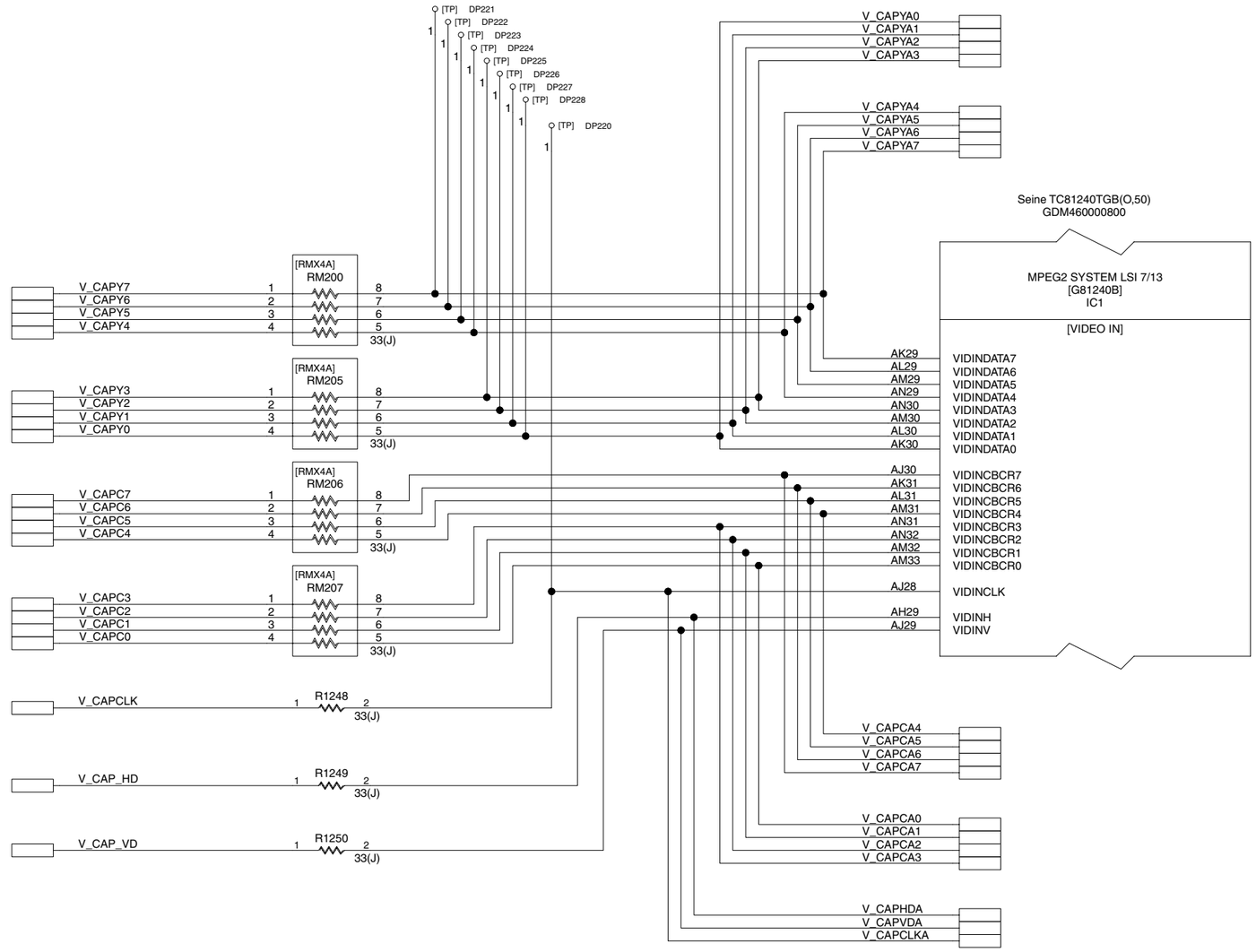


46HM94/52HM94/62HM94
SEINE_PJTV (EJTAG_CONNECTOR)

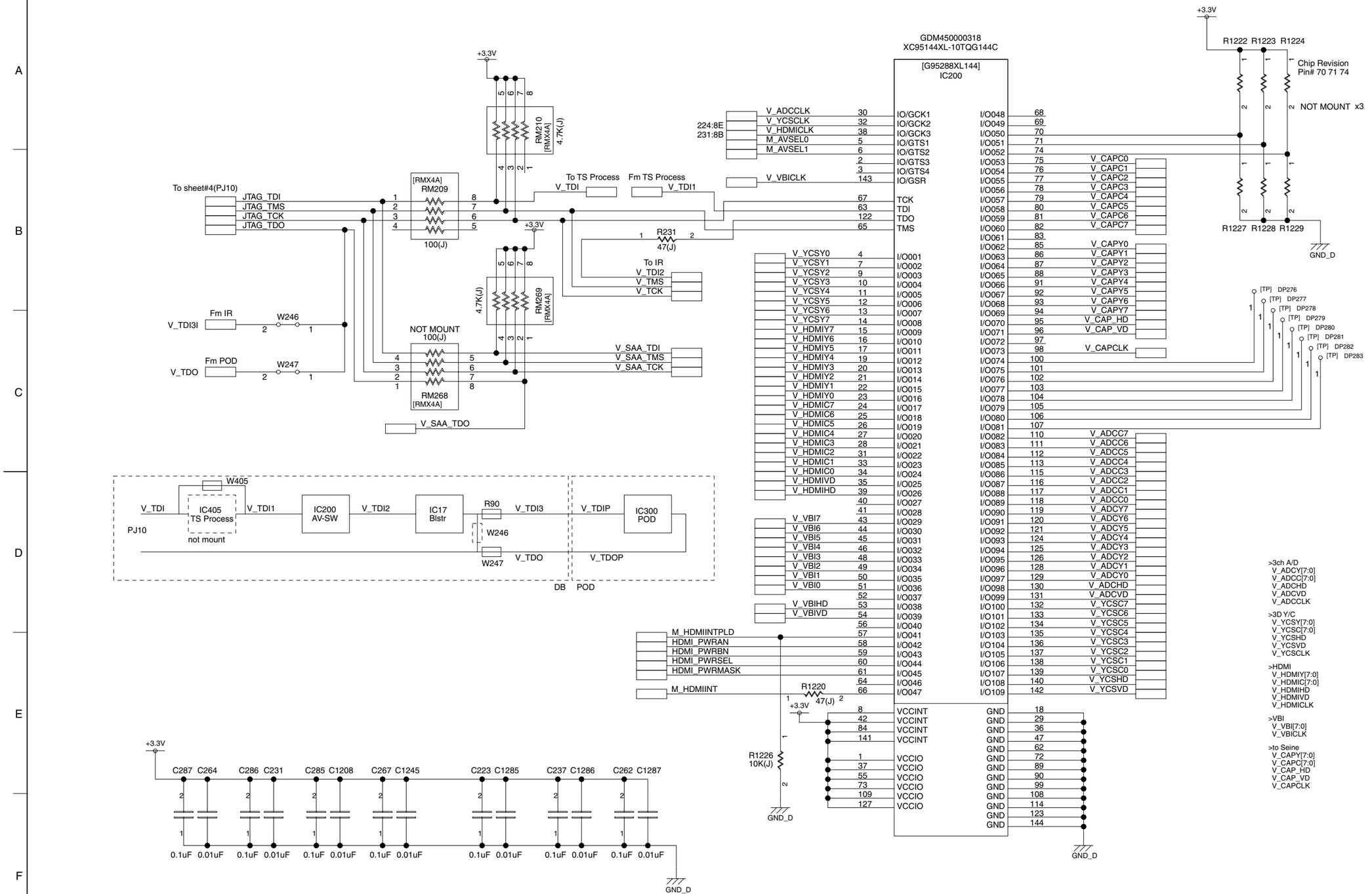
SH.NO. 16



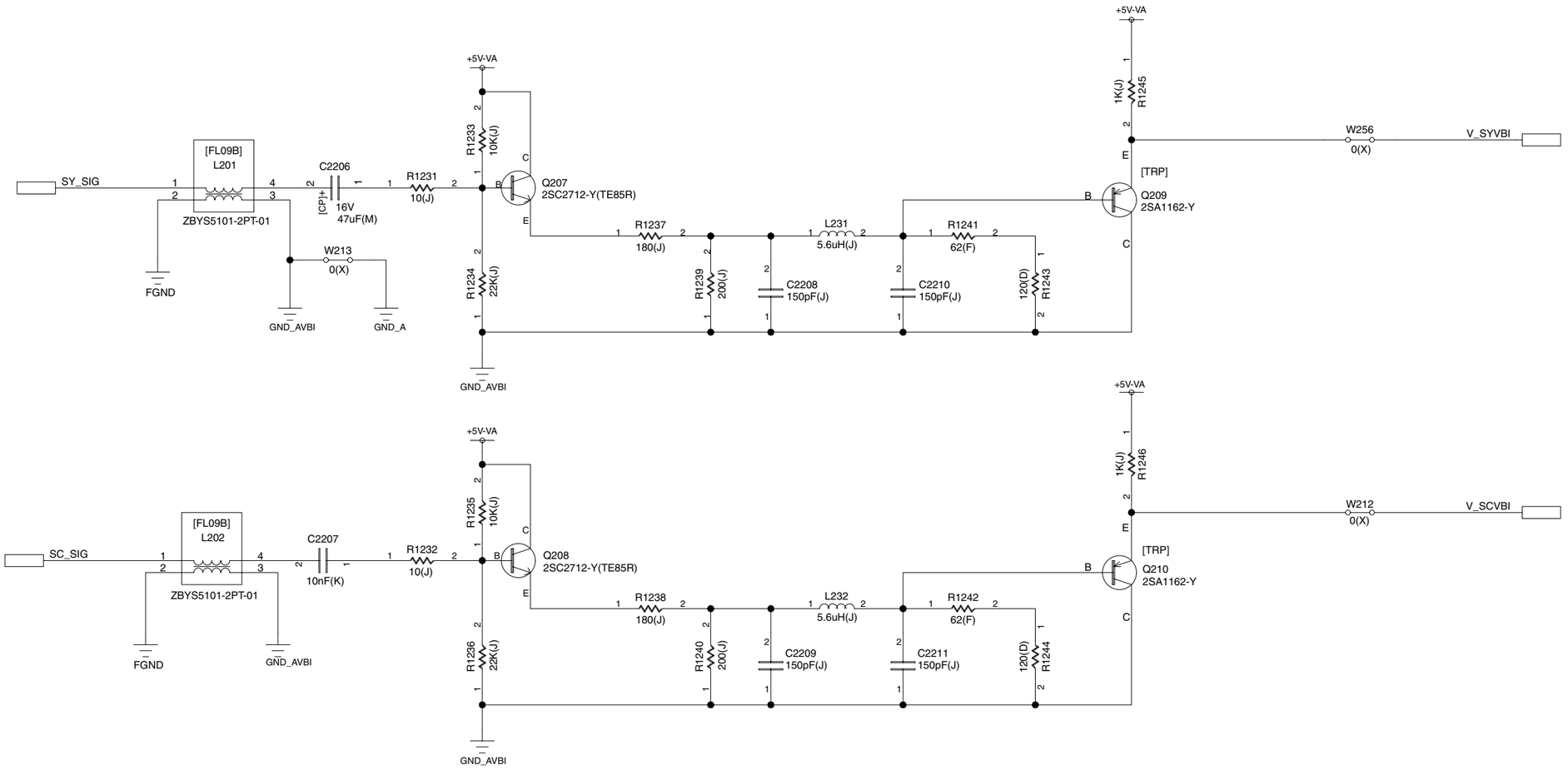
46HM94/52HM94/62HM94 SH.NO.
SEINE_PJTV (SEINE_TS_I/F) 110



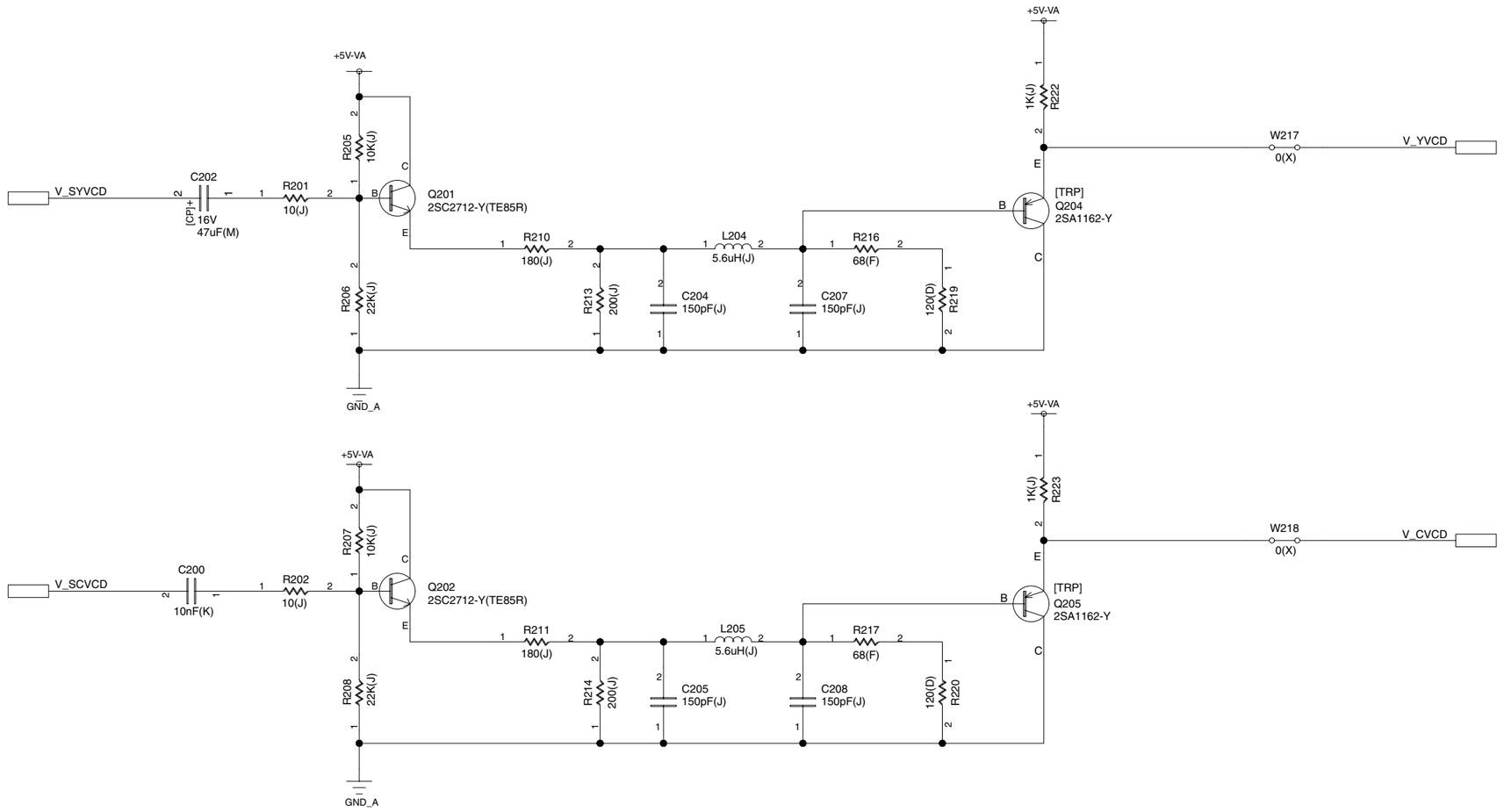
46HM94/52HM94/62HM94 SH.NO.
SEINE_PJTV (SEINE_CAPTURE_IN) 200



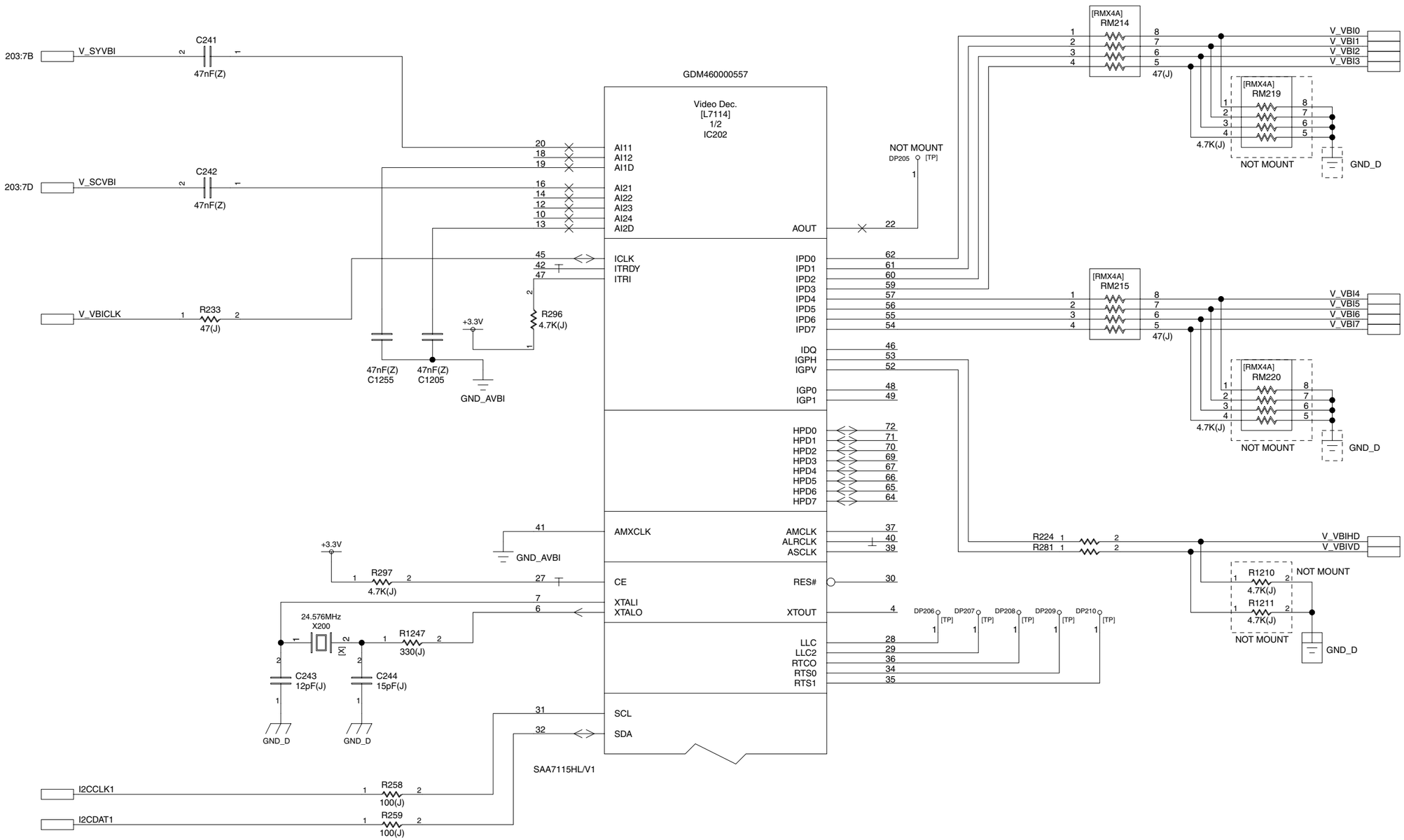
46HM94/52HM94/62HM94
SEINE_PJTV (CPLD-VIDEO_SW)
SH.NO. 202



46HM94/52HM94/62HM94 SH.NO.
SEINE_PJTV (VIDEO_LPF_VBL) 203

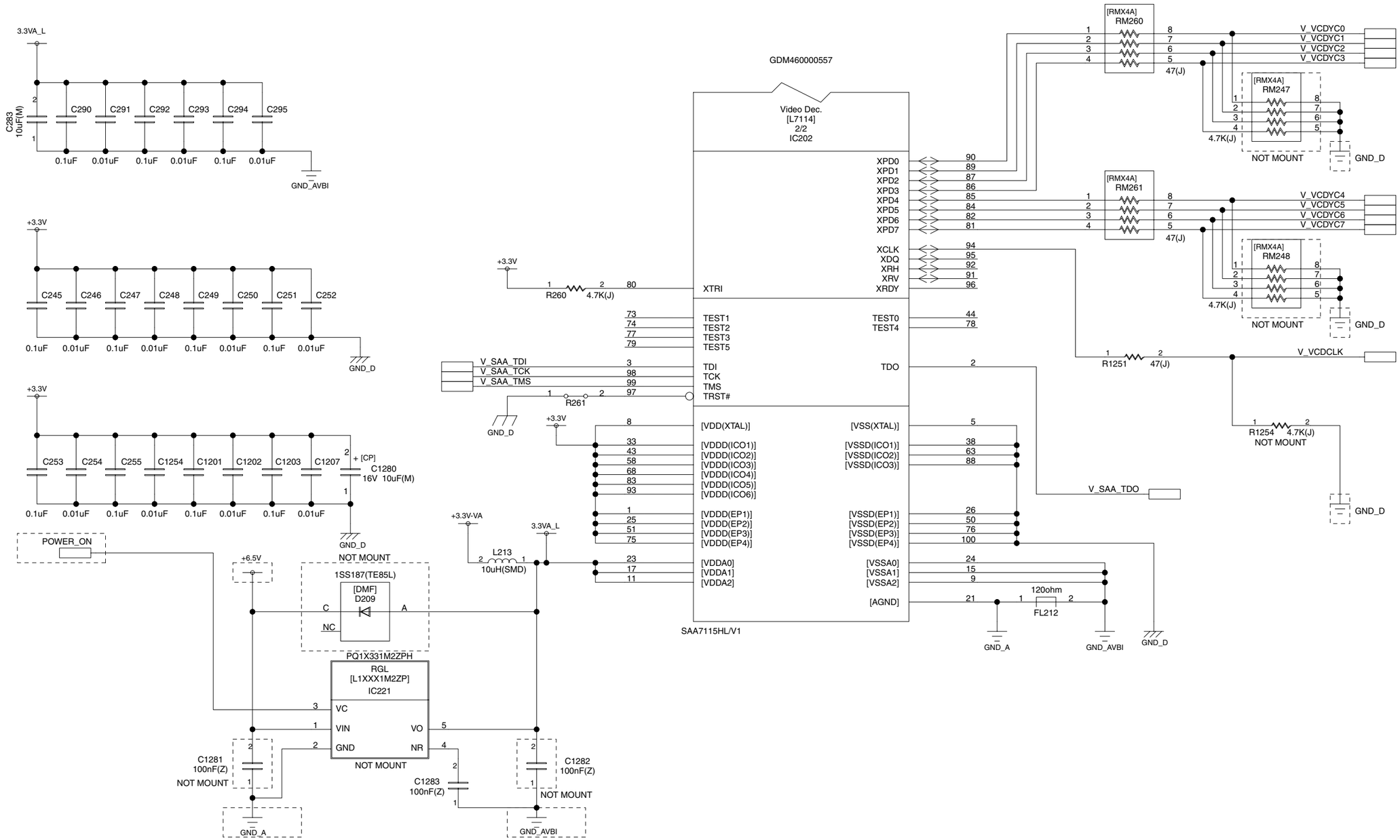


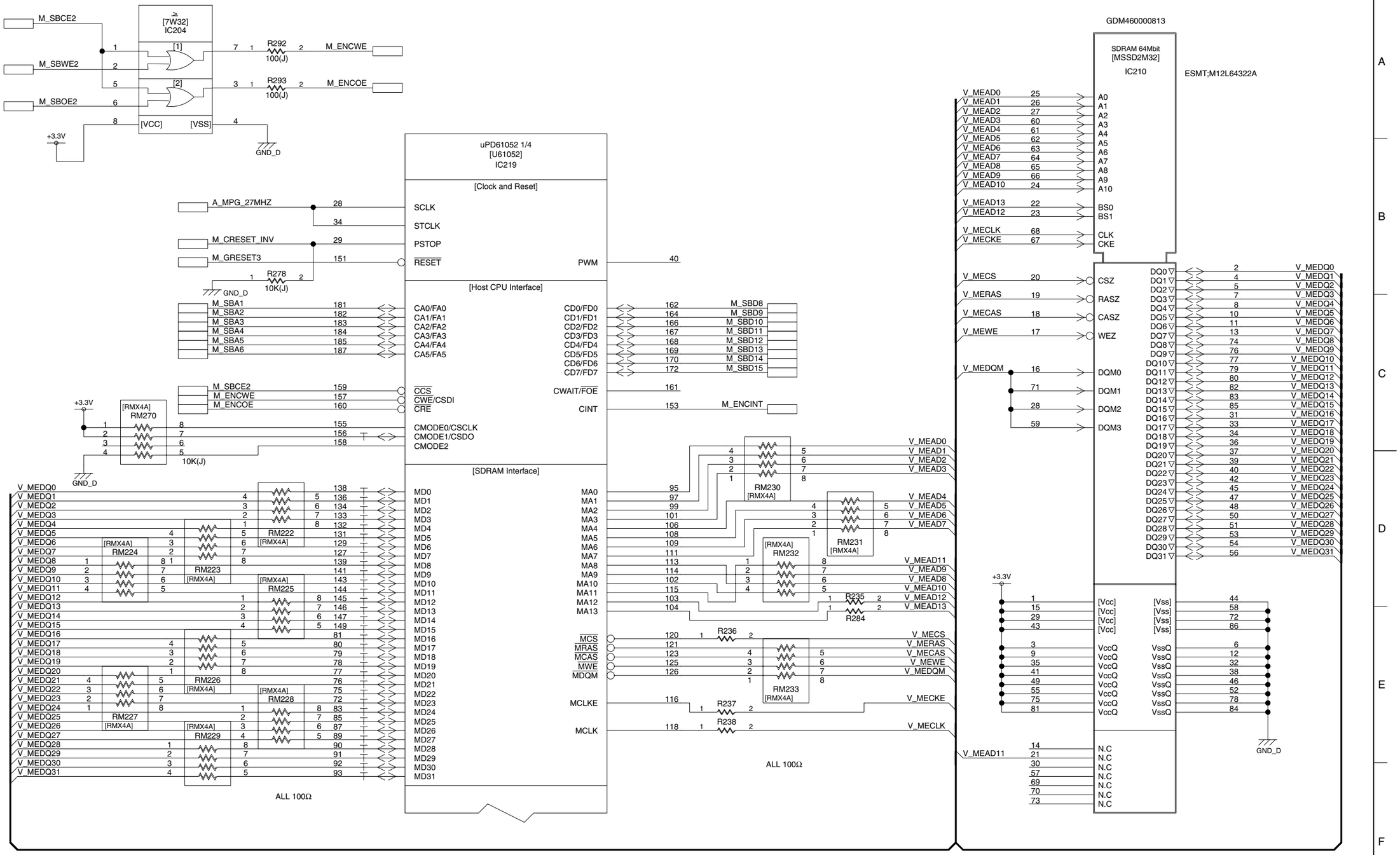
46HM94/52HM94/62HM94 SH.NO.
SEINE_PJTV (VIDEO_LPF_VCD) 204



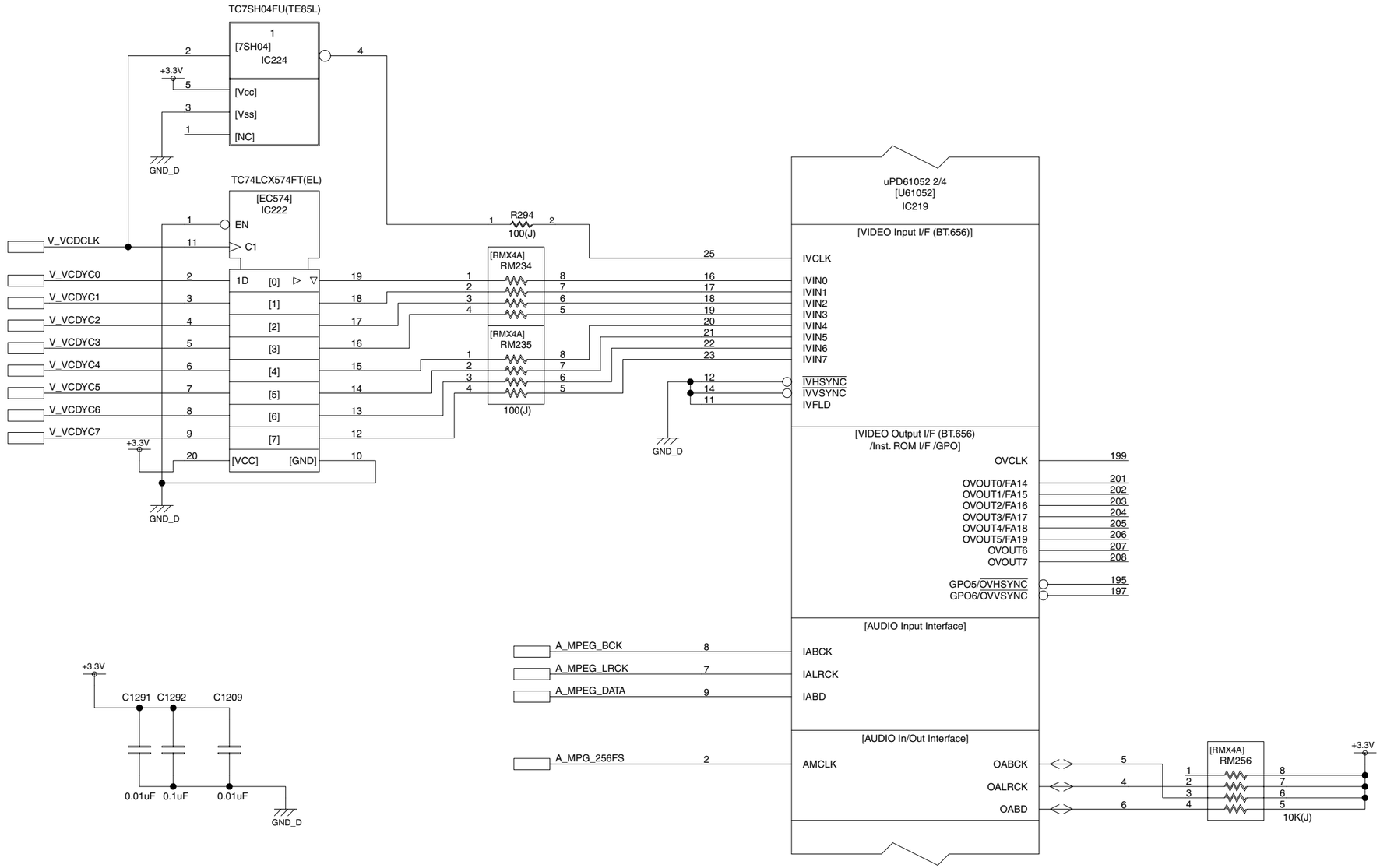
46HM94/52HM94/62HM94
SEINE_PJTV (VIDEO_IN-NTSDECORDER1)

SH.NO. 205

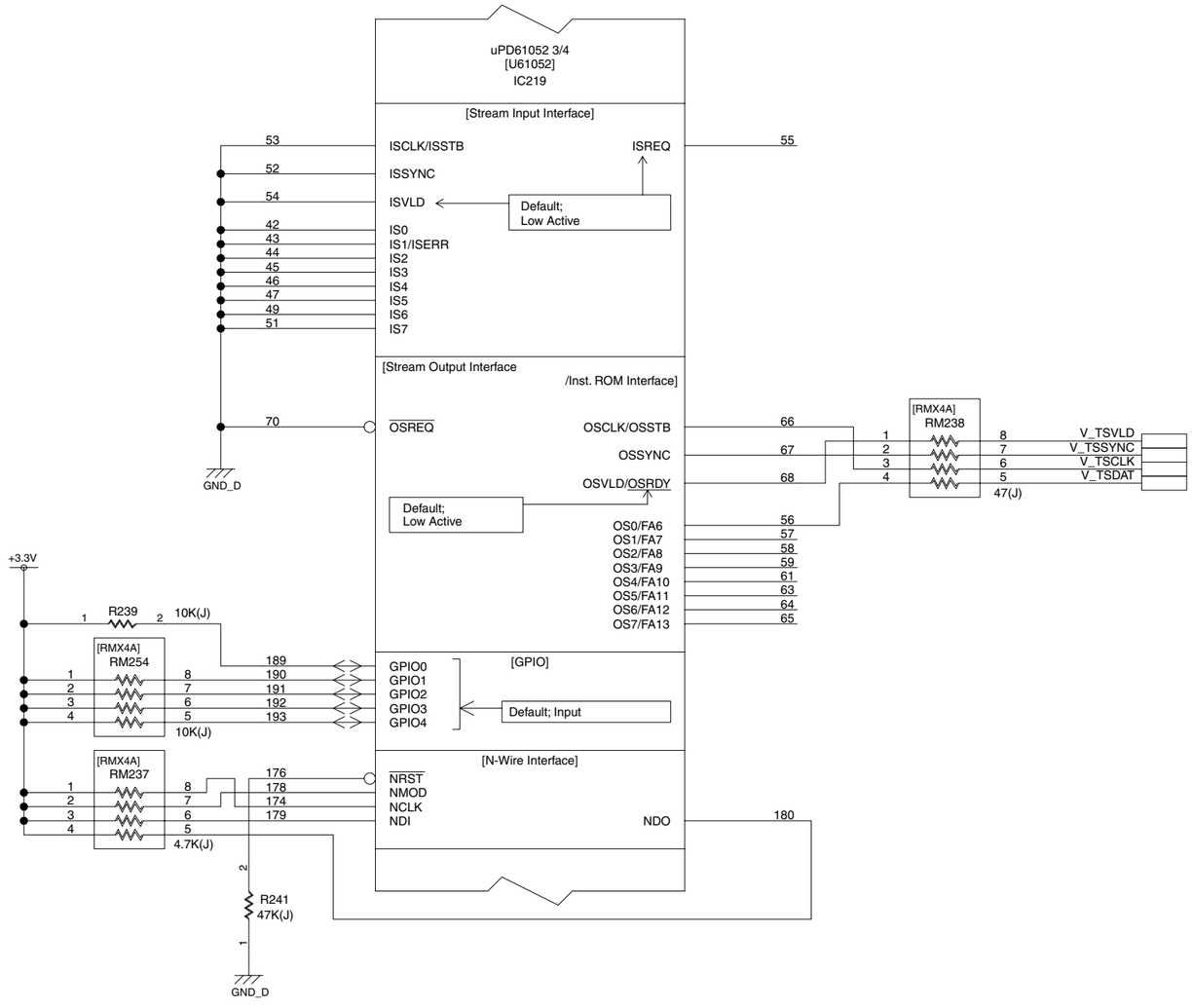

3.3VA_L
C283
10uF(M)
C290 C291 C292 C293 C294 C295
0.1uF 0.01uF 0.1uF 0.01uF 0.1uF 0.01uF
GND_AVBI
+3.3V
C245 C246 C247 C248 C249 C250 C251 C252
0.1uF 0.01uF 0.1uF 0.01uF 0.1uF 0.01uF 0.1uF 0.01uF
GND_D
+3.3V
C253 C254 C255 C1254 C1201 C1202 C1203 C1207
0.1uF 0.01uF 0.1uF 0.01uF 0.1uF 0.01uF 0.1uF 0.01uF
+ [CP]
C1280
16V 10uF(M)
GND_D
POWER_ON
+6.5V
NOT MOUNT
1SS187(TE85L)
[DMF]
D209
C
A
NC
PQ1X331M2ZPH
RGL
[L1XXX1M2ZP]
IC221
VC
VIN
GND
VO
NR
C1281
100nF(Z)
NOT MOUNT
C1283
100nF(Z)
C1282
100nF(Z)
NOT MOUNT
GND_A
GND_AVBI
+3.3V-VA
3.3VA_L
L213
10uH(SMD)
GDM460000557
Video Dec.
[L7114]
2/2
IC202
XTRI
TEST1
TEST2
TEST3
TEST5
TEST0
TEST4
TDI
TCK
TMS
TRST#
TDO
V_SAA_TDI
V_SAA_TCK
V_SAA_TMS
R260 4.7K(J)
R261
[VDD(XTAL)]
[VSS(XTAL)]
[VDDD(ICO1)]
[VDDD(ICO2)]
[VDDD(ICO3)]
[VDDD(ICO4)]
[VDDD(ICO5)]
[VDDD(ICO6)]
[VDDD(EP1)]
[VDDD(EP2)]
[VDDD(EP3)]
[VDDD(EP4)]
[VDDA0]
[VDDA1]
[VDDA2]
[VSSD(ICO1)]
[VSSD(ICO2)]
[VSSD(ICO3)]
[VSSD(EP1)]
[VSSD(EP2)]
[VSSD(EP3)]
[VSSD(EP4)]
[VSSA0]
[VSSA1]
[VSSA2]
[AGND]
SAA7115HL/V1
XPD0
XPD1
XPD2
XPD3
XPD4
XPD5
XPD6
XPD7
XCLK
XDQ
XRH
XRV
XRDY
[RMX4A]
RM260
[RMX4A]
RM247
[RMX4A]
RM261
[RMX4A]
RM248
47(J)
4.7K(J)
NOT MOUNT
V_VCDYC0
V_VCDYC1
V_VCDYC2
V_VCDYC3
V_VCDYC4
V_VCDYC5
V_VCDYC6
V_VCDYC7
V_VCDCLK
R1251 47(J)
R1254 4.7K(J)
NOT MOUNT
V_SAA_TDO
120ohm
FL212
GND_A
GND_AVBI
GND_D

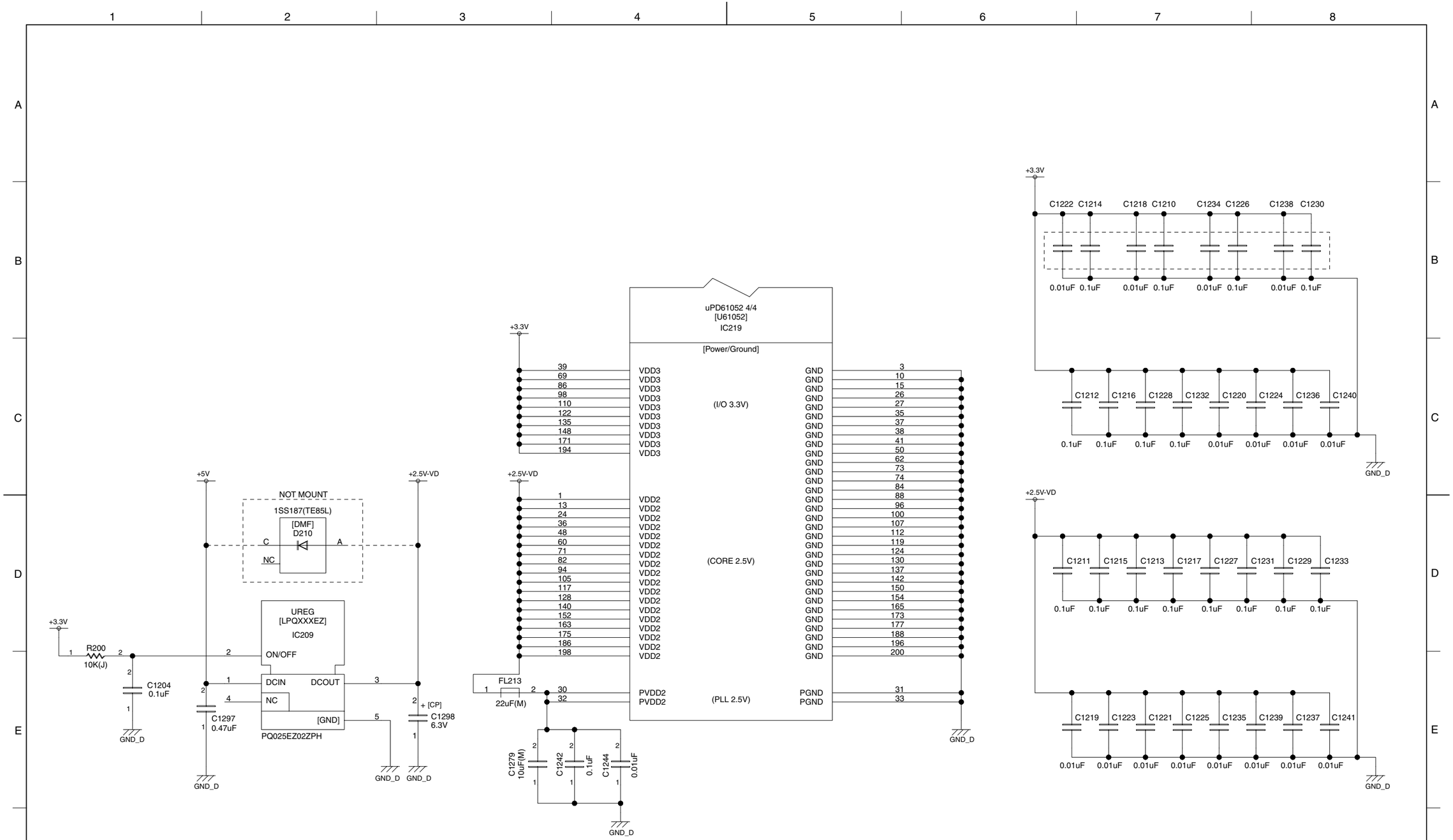


46HM94/52HM94/62HM94
SEINE_PJTV (VIDEO_IN-MPEG_ENC1) SH.NO. 208



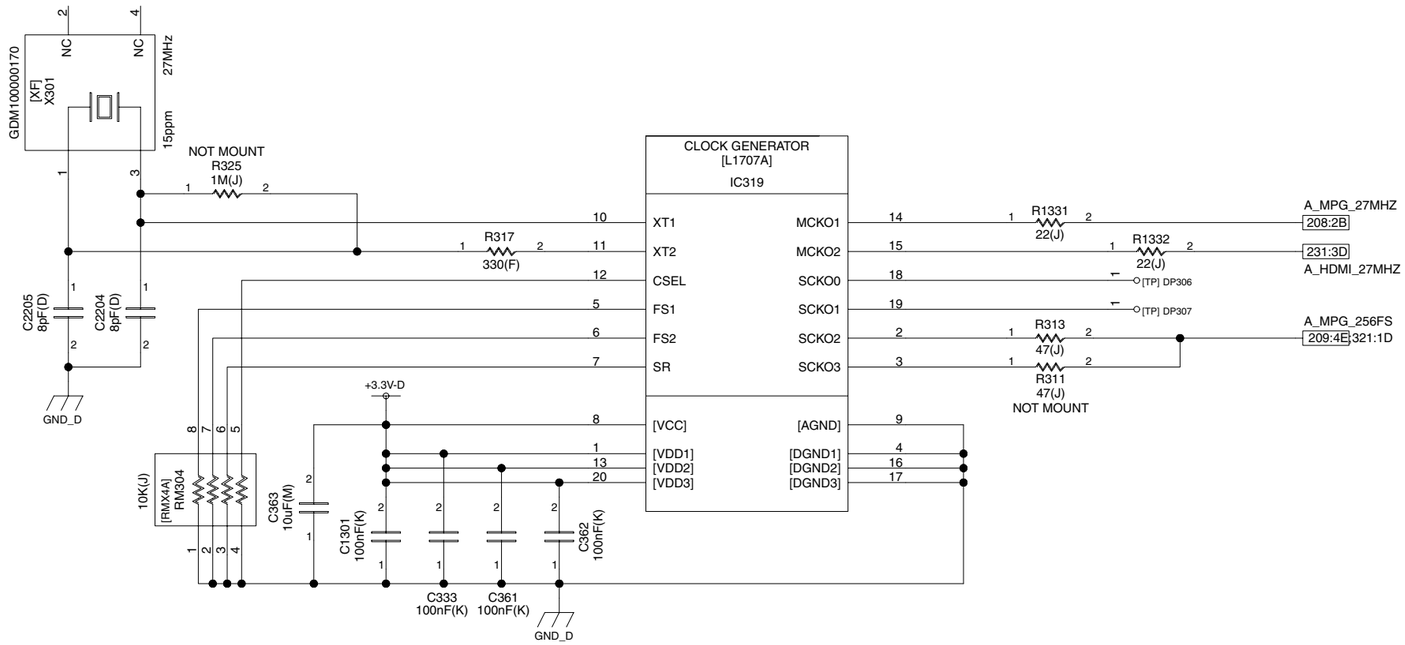
46HM94/52HM94/62HM94 SH.NO.
SEINE_PJTV (VIDEO_IN-MPEG_ENC2) 209


uPD61052 3/4
[U61052]
IC219
[Stream Input Interface]
ISCLK/ISSTB
ISSYNC
ISVLD
IS0
IS1/ISERR
IS2
IS3
IS4
IS5
IS6
IS7
ISREQ
Default;
Low Active
[Stream Output Interface
/Inst. ROM Interface]
OSREQ
OSCLK/OSSTB
OSSYNC
OSVLD/OSRDY
Default;
Low Active
OS0/FA6
OS1/FA7
OS2/FA8
OS3/FA9
OS4/FA10
OS5/FA11
OS6/FA12
OS7/FA13
[GPIO]
GPIO0
GPIO1
GPIO2
GPIO3
GPIO4
Default; Input
[N-Wire Interface]
NRST
NMOD
NCLK
NDI
NDO
[RMX4A]
RM238
47(J)
V_TSVLD
V_TSSYNC
V_TSCLK
V_TSDAT
+3.3V
R239
10K(J)
[RMX4A]
RM254
10K(J)
[RMX4A]
RM237
4.7K(J)
R241
47K(J)
GND_D
GND_D

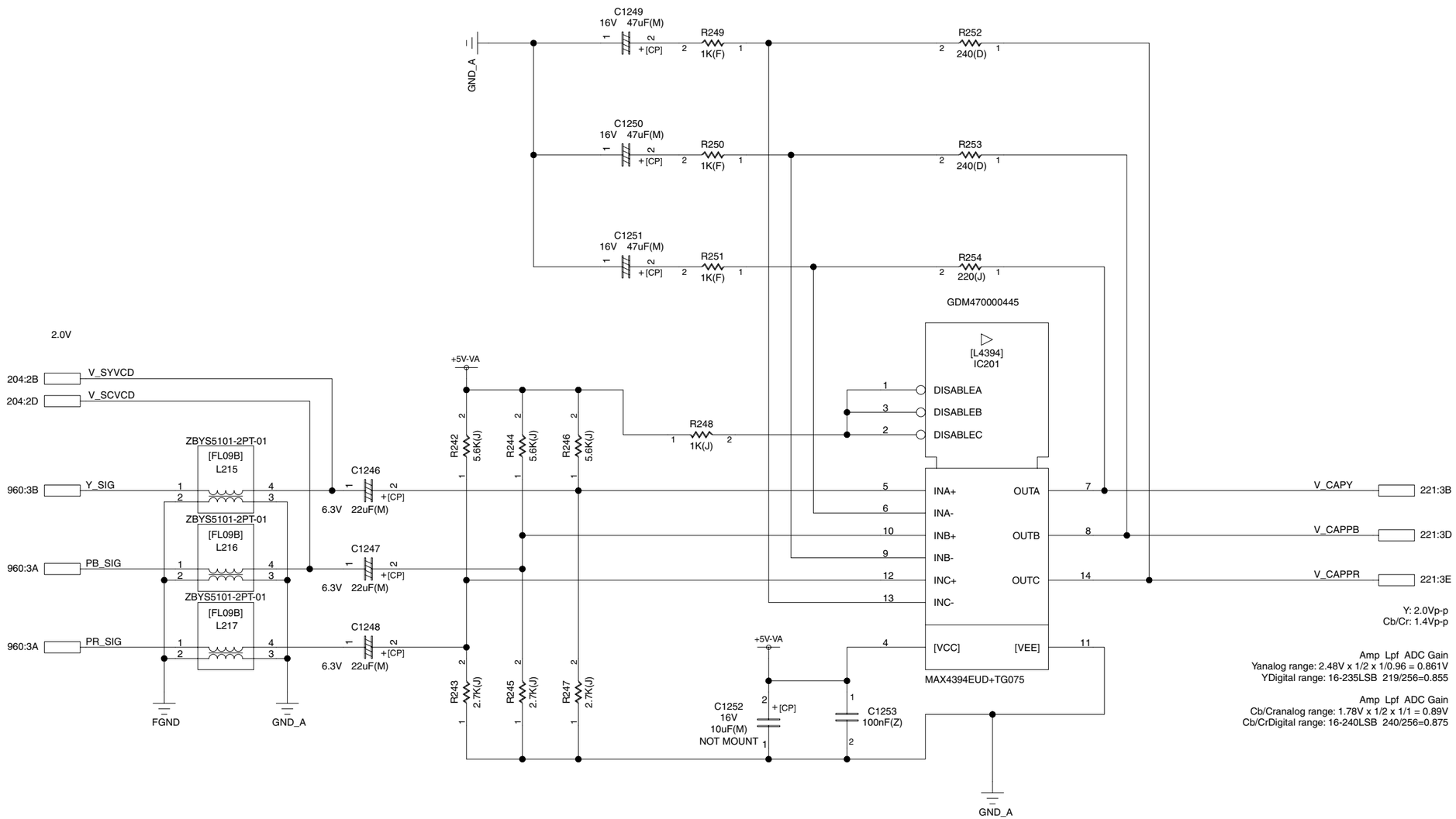


46HM94/52HM94/62HM94
SEINE_PJTV (VIDEO_IN-MPEG_ENC4)

SH.NO.
211

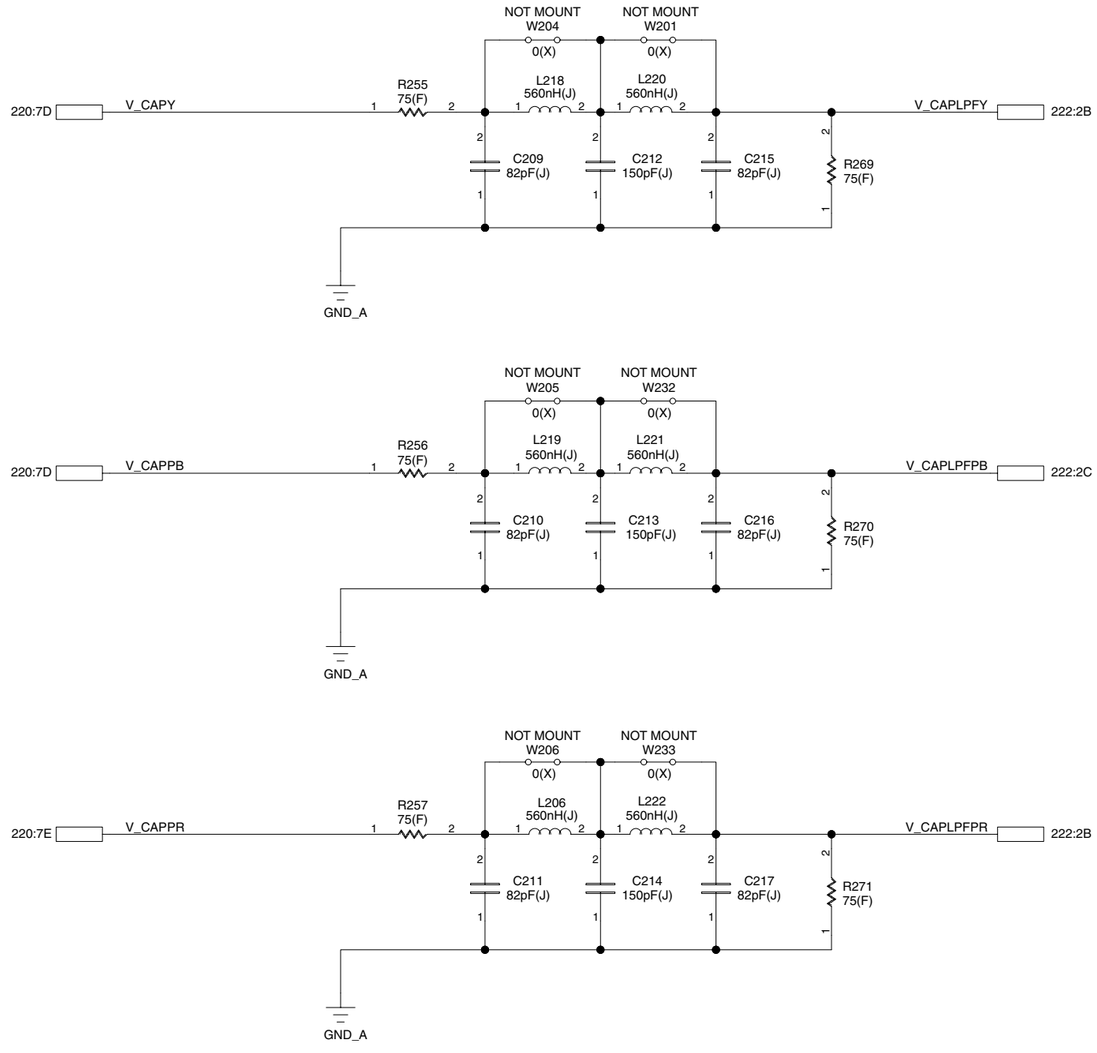


46HM94/52HM94/62HM94 SH.NO.
SEINE_PJTV (MPEG_AUDIO_PLL) 212

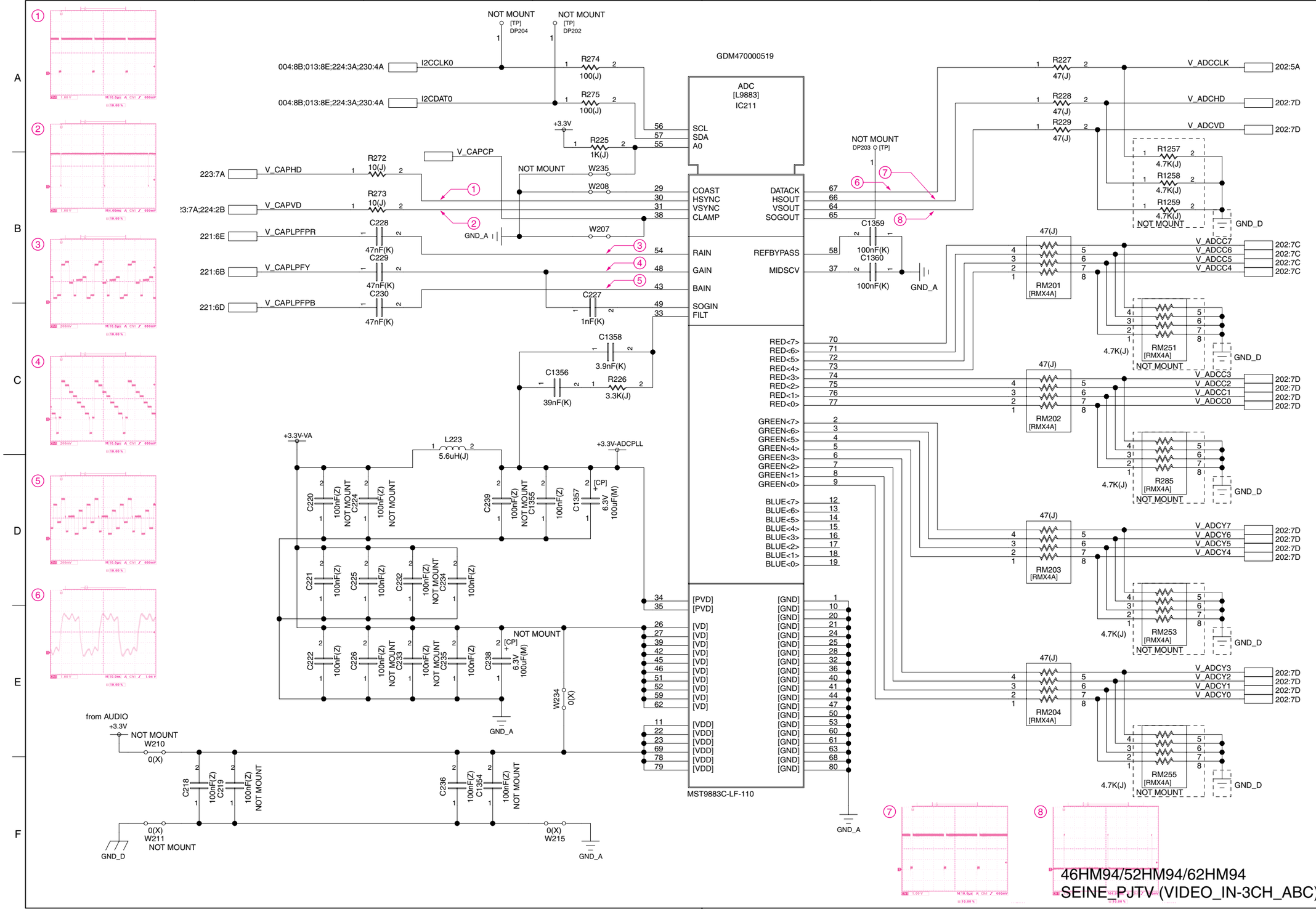


46HM94/52HM94/62HM94
SEINE_PJTV (VIDEO_IN-CAPTURE_AMP)

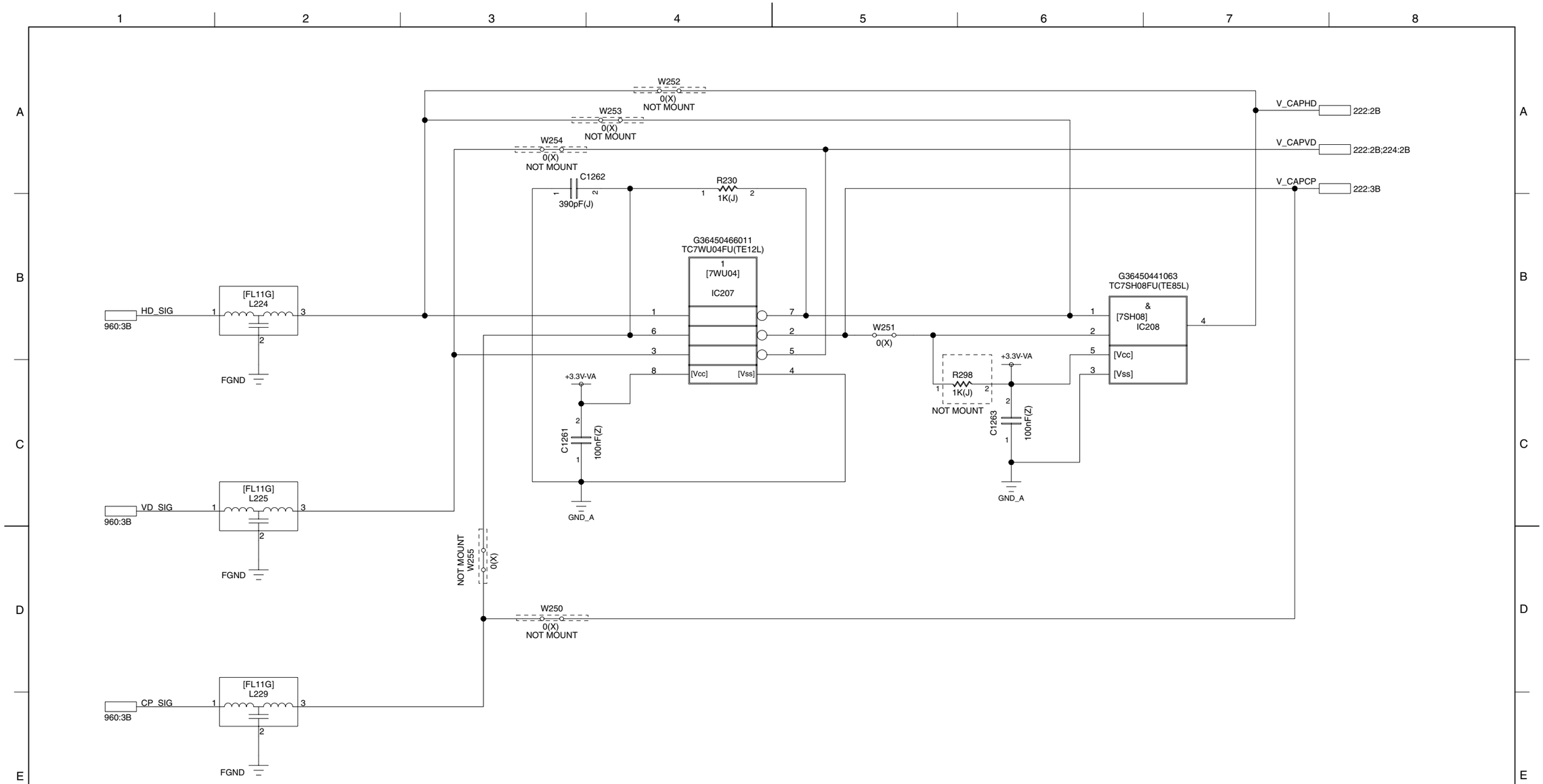
SH.NO. 220



46HM94/52HM94/62HM94 SH.NO.
SEINE_PJTV (VIDEO_IN-CAPTURE_LPF) 221


NOT MOUNT [TP] DP204
NOT MOUNT [TP] DP202
GDM470000519
ADC [L9883] IC211
004:8B;013:8E;224:3A;230:4A
I2CCLK0
I2CDAT0
R274 100(J)
R275 100(J)
+3.3V
R225 1K(J)
SCL
SDA
A0
V_CAPCP
V_CAPHD
V_CAPVD
V_CAPLPFPR
V_CAPLPFY
V_CAPLPFPB
223:7A
3:7A;224:2B
221:6E
221:6B
221:6D
R272 10(J)
R273 10(J)
C228 47nF(K)
C229 47nF(K)
C230 47nF(K)
NOT MOUNT W235
W208
W207
GND_A
COAST
HSYNC
VSYNC
CLAMP
RAIN
GAIN
BAIN
SOGIN
FILT
C227 1nF(K)
C1358 3.9nF(K)
C1356 39nF(K)
R226 3.3K(J)
DATACK
HSOUT
VSOUT
SOGOUT
REFBYPASS
MIDSCV
C1359 100nF(K)
C1360 100nF(K)
NOT MOUNT DP203 [TP]
R227 47(J)
R228 47(J)
R229 47(J)
V_ADCCLK
V_ADCHD
V_ADCVD
202:5A
202:7D
R1257 4.7K(J)
R1258 4.7K(J)
R1259 4.7K(J)
NOT MOUNT
GND_D
RM201 [RMX4A]
RM251 [RMX4A]
RM202 [RMX4A]
RM253 [RMX4A]
RM204 [RMX4A]
R285 [RMX4A]
RM255 [RMX4A]
47(J)
4.7K(J)
V_ADCC7
V_ADCC6
V_ADCC5
V_ADCC4
V_ADCC3
V_ADCC2
V_ADCC1
V_ADCC0
V_ADCY7
V_ADCY6
V_ADCY5
V_ADCY4
V_ADCY3
V_ADCY2
V_ADCY1
V_ADCY0
202:7C
RED<7>
RED<6>
RED<5>
RED<4>
RED<3>
RED<2>
RED<1>
RED<0>
GREEN<7>
GREEN<6>
GREEN<5>
GREEN<4>
GREEN<3>
GREEN<2>
GREEN<1>
GREEN<0>
BLUE<7>
BLUE<6>
BLUE<5>
BLUE<4>
BLUE<3>
BLUE<2>
BLUE<1>
BLUE<0>
+3.3V-VA
L223 5.6uH(J)
+3.3V-ADCPLL
C220 100nF(Z) NOT MOUNT
C224 100nF(Z) NOT MOUNT
C239 100nF(Z) NOT MOUNT
C1355 100nF(Z)
C1357 6.3V 100uF(M)
C221 100nF(Z)
C225 100nF(Z)
C232 100nF(Z) NOT MOUNT
C234 100nF(Z)
C222 100nF(Z)
C226 100nF(Z) NOT MOUNT
C233 100nF(Z) NOT MOUNT
C235 100nF(Z)
C238 6.3V 100uF(M)
[PVD]
[VD]
[VDD]
[GND]
MST9883C-LF-110
from AUDIO
+3.3V
NOT MOUNT W210
0(X)
W234
C218 100nF(Z) NOT MOUNT
C219 100nF(Z) NOT MOUNT
C236 100nF(Z) NOT MOUNT
C1354 100nF(Z) NOT MOUNT
W211 NOT MOUNT
W215
GND_D
GND_A
46HM94/52HM94/62HM94
SEINE_PJTV (VIDEO_IN-3CH_ABC)
SH.NO.
222

(76/125)



46HM94/52HM94/62HM94
SEINE_PJTV (VIDEO_IN-CAPTURE_HD/VD)

SH.NO.
223

GDM450000259

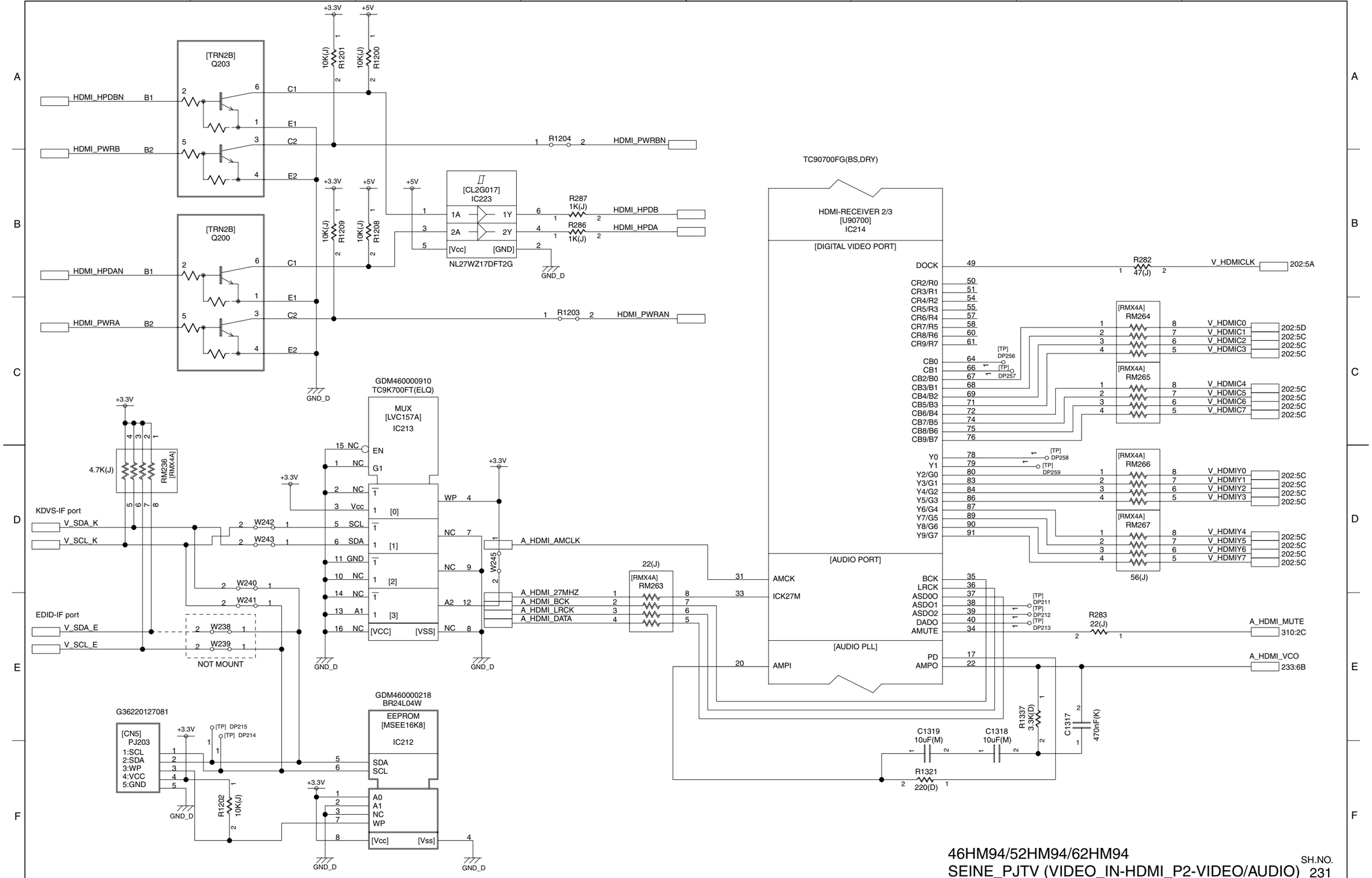
VIDEO DECODER
[U90A92]
IC203

TC90A92AFG(BH,DRY)

46HM94/52HM94/62HM94
SEINE_PJTV (VIDEO_IN-3D_Y/C) SH.NO. 224

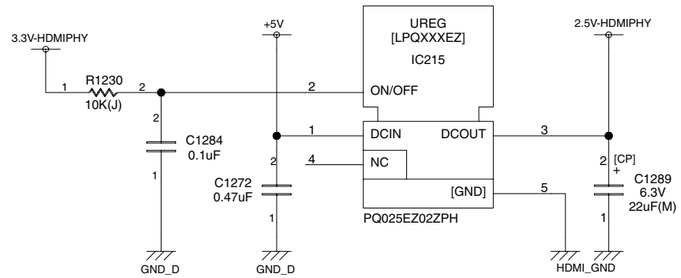
PORT#A
[C19A4]
PJ201
D2+
D2S
D2-
D1+
D1S
D1-
D0+
D0S
D0-
CLK+
CLKS
CLK-
(CEC)
NC
SCL
SDA
GND
PWR
DET
DC1R019JD1E400
HDMI_GND
GND_DDC
GND_D
[FL09B]
FL200
FL201
FL206
[FL09B]
FL207
[FL09B]
FL220
[FL09C]
FL222
[FL09C]
R1213
R1212
V_RXA2N
V_RXA2P
V_RXA1P
V_RXA1N
V_RXA0N
V_RXA0P
V_RXACP
V_RXACN
HDMI_PWRA
HDMI_HPDA
+5V
D211
[DMC]
D213
[DMC]
D212
[DMC]
D214
[DMC]
NOT MOUNT
HMX94 ONLY
PORT#B
[C19A4]
PJ202
W216
NOT MOUNT
FL203
[FL09B]
FL209
FL204
[FL09B]
FL210
FL221
[FL09C]
FL223
[FL09C]
R1215
R1214
47K(J)
V_RXB2P
V_RXB2N
V_RXB1N
V_RXB1P
V_RXB0P
V_RXB0N
V_RXBCN
V_RXBCP
HDMI_PWRB
HDMI_HPDB
FL219
FGND
+3.3V
NOT MOUNT
[RMX4A]
RM241
56(J)
I2CCLK0
I2CDAT0
W237
W236
HDMI_SCL
HDMI_SDA
W259
W260
M_GRESET3
[TP]
DP216
V_SCL_E
V_SDA_E
R1205
47K(J)
R1207
3.3V-HDMIPHY
R232
1K(J)
R276
R234
1K(J)
R277
2.5V-HDMI
C1256
0.1uF
C1264
0.1uF
C1290
0.1uF
R1206
300(F)
TC90700FG(BS,DRY)
HDMI-RECEIVER 1/3
[U90700]
IC214
SCL_H
SDA_H
SMODE
TEST3
TEST2
TEST1
RESET
HINT
R1225
47(J)
M_HDMIINTPLD
To CPLD
R280
NOT MOUNT
M_HDMIINT
To Seine
[EDID IF/Kdvs IF]
SCL_E
SDA_E
SCL_K
SDA_K
V_SCL_K
V_SDA_K
[DDC A/B]
SCL_DDCA
SDA_DDCA
SCL_DDCB
SDA_DDCB
[Link Port A/B]
V_RXACN
V_RXACP
V_RXA0N
V_RXA0P
V_RXA1N
V_RXA1P
V_RXA2N
V_RXA2P
RXACN
RXACP
RXA0N
RXA0P
RXA1N
RXA1P
RXA2N
RXA2P
RRES_PA
V_RXBCN
V_RXBCP
V_RXB0N
V_RXB0P
V_RXB1N
V_RXB1P
V_RXB2N
V_RXB2P
RXBCN
RXBCP
RXB0N
RXB0P
RXB1N
RXB1P
RXB2N
RXB2P
RRES_PB
VREF_PA
R1263
C1700
0.1uF
0.01uF
C1243
VREF_PB
R1264
C1701
0.1uF
0.01uF
R1288
[ANALOGUE VIDEO PORT]
VBS
VREF
IREF
YP
YN
PBP
PBN
PRP
PRN
HBLANK
VBLANK
HSYNC
VSYNC
[RMX4A]
RM242
56(J)
V_HDMIHD
V_HDMIVD
HDMI_VD

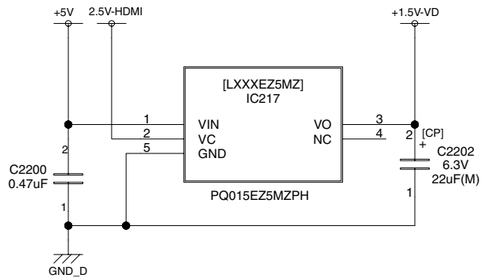
46HM94/52HM94/62HM94
SEINE_PJTV (VIDEO_IN-HDMI-LINK/12C)
SH.NO. 230

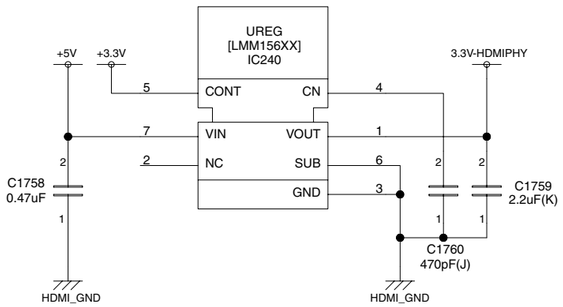


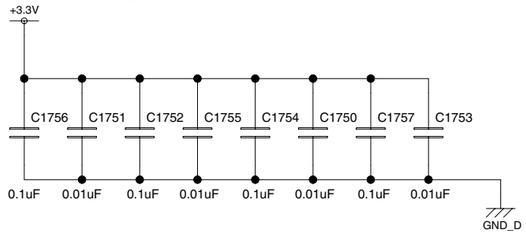
46HM94/52HM94/62HM94
SEINE_PJTV (VIDEO_IN-HDMI_P2-VIDEO/AUDIO)

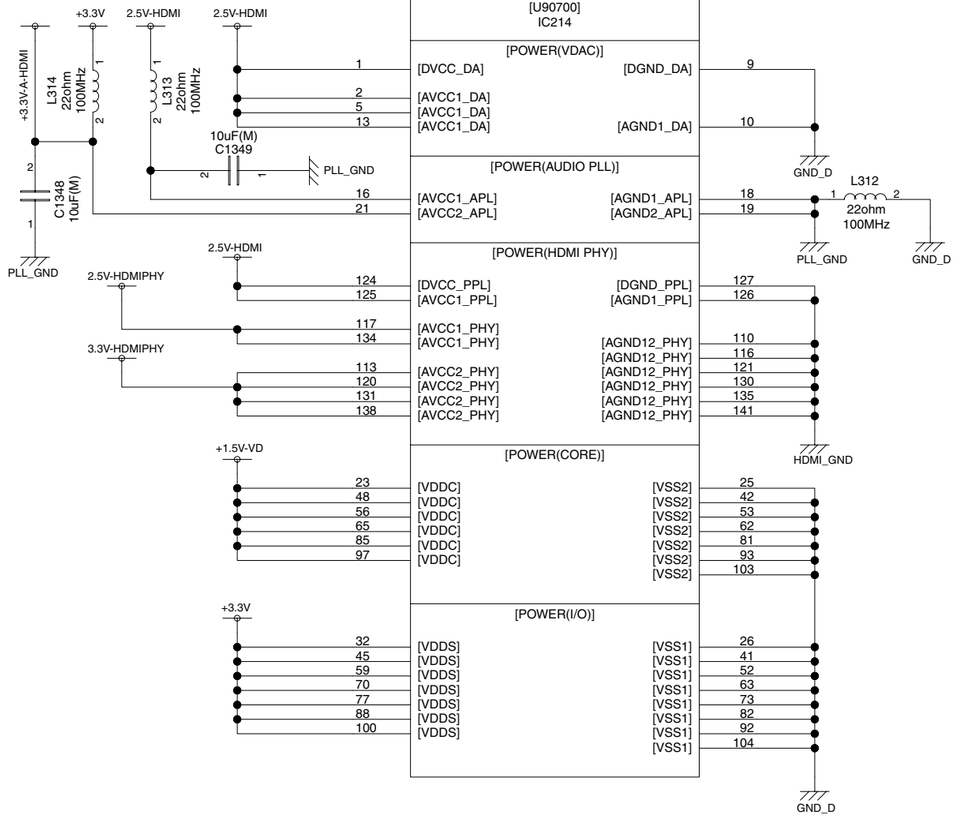
SH.NO. 231

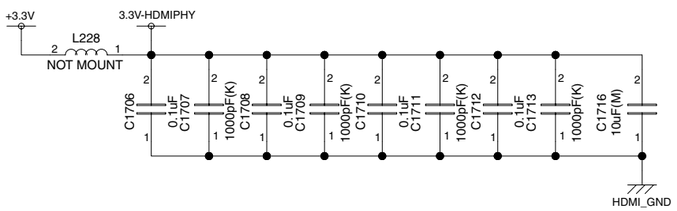


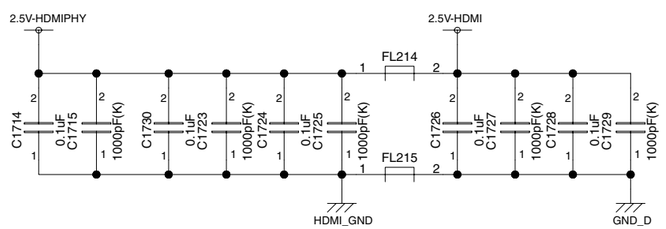


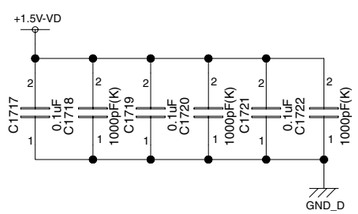






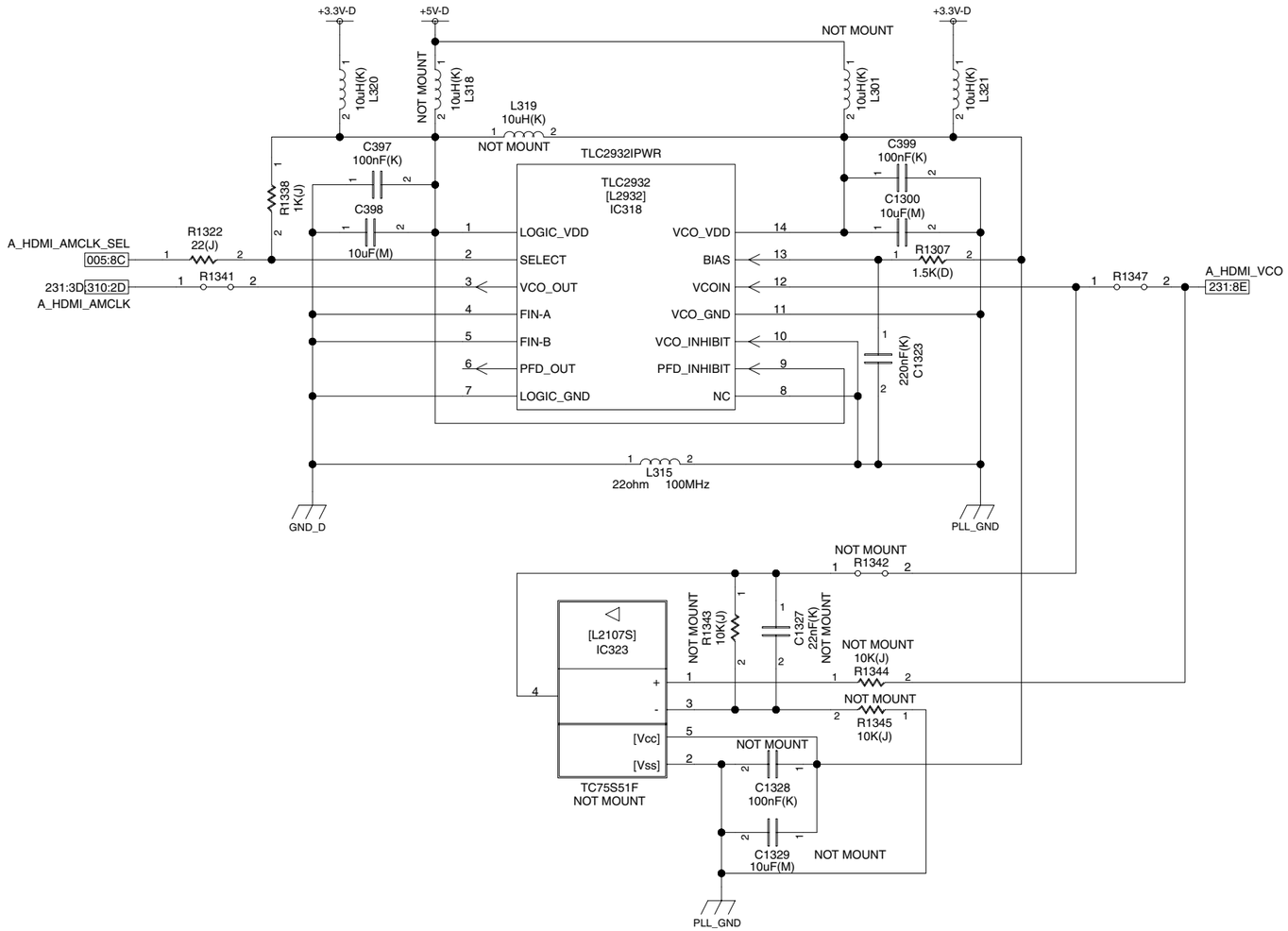






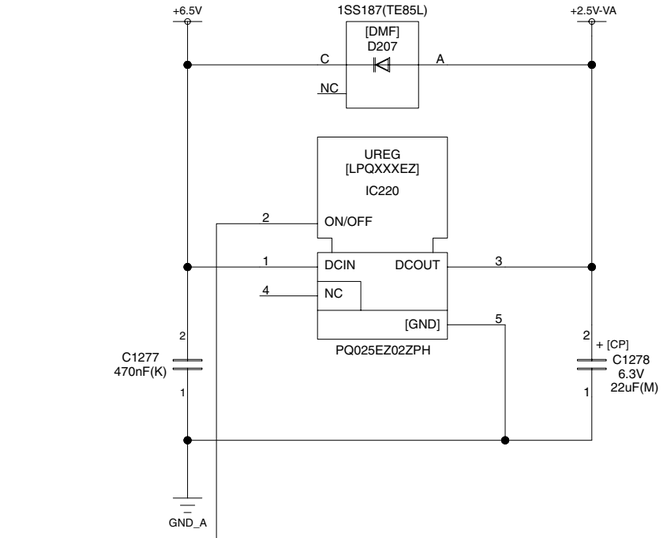
46HM94/52HM94/62HM94
SEINE_PJTV (VIDEO_IN-HDMI_P3-PWR/AUDIO)

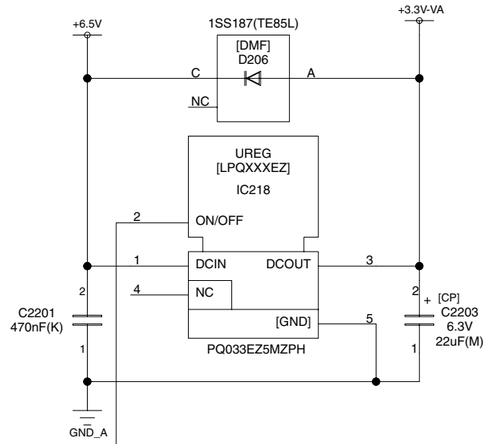
SH.NO.
232



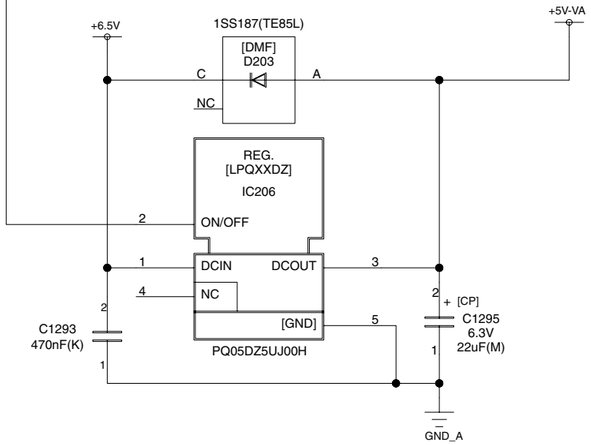
46HM94/52HM94/62HM94
SEINE_PJTV (HDMI_AUDIO_PLL)

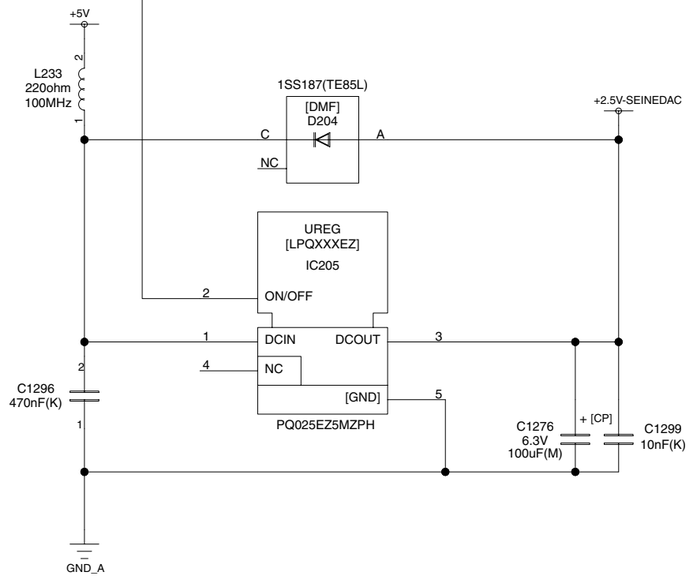
SH.NO. 233





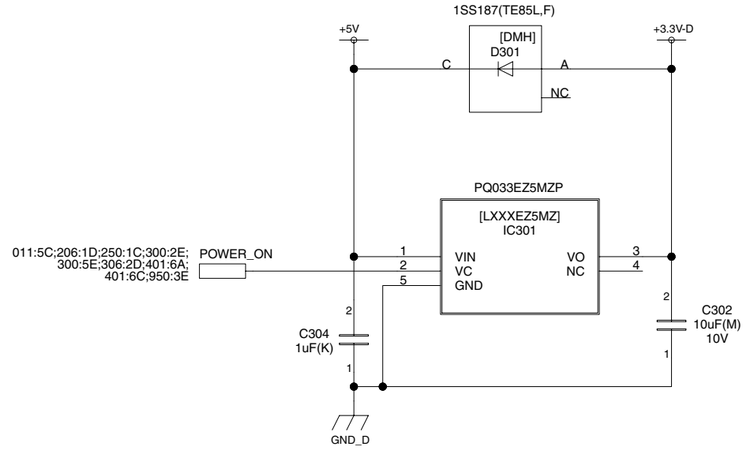
POWER_ON

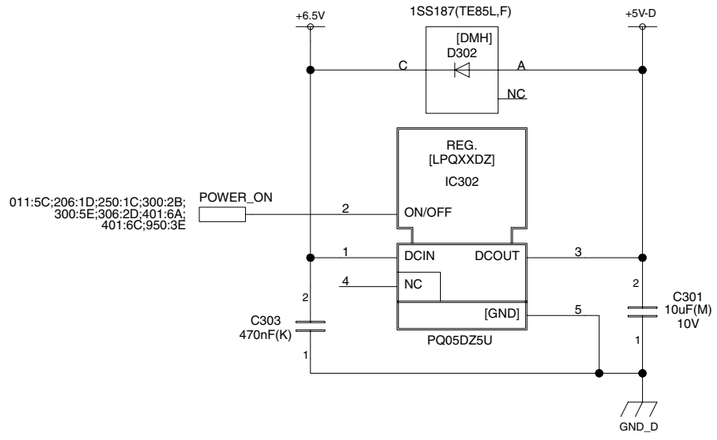


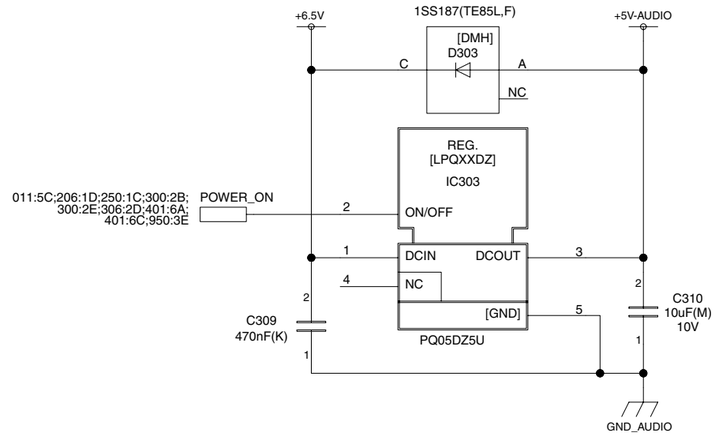


46HM94/52HM94/62HM94
SEINE_PJTV (VIDEO_IN-VIDEO_POWER)

SH.NO.
250

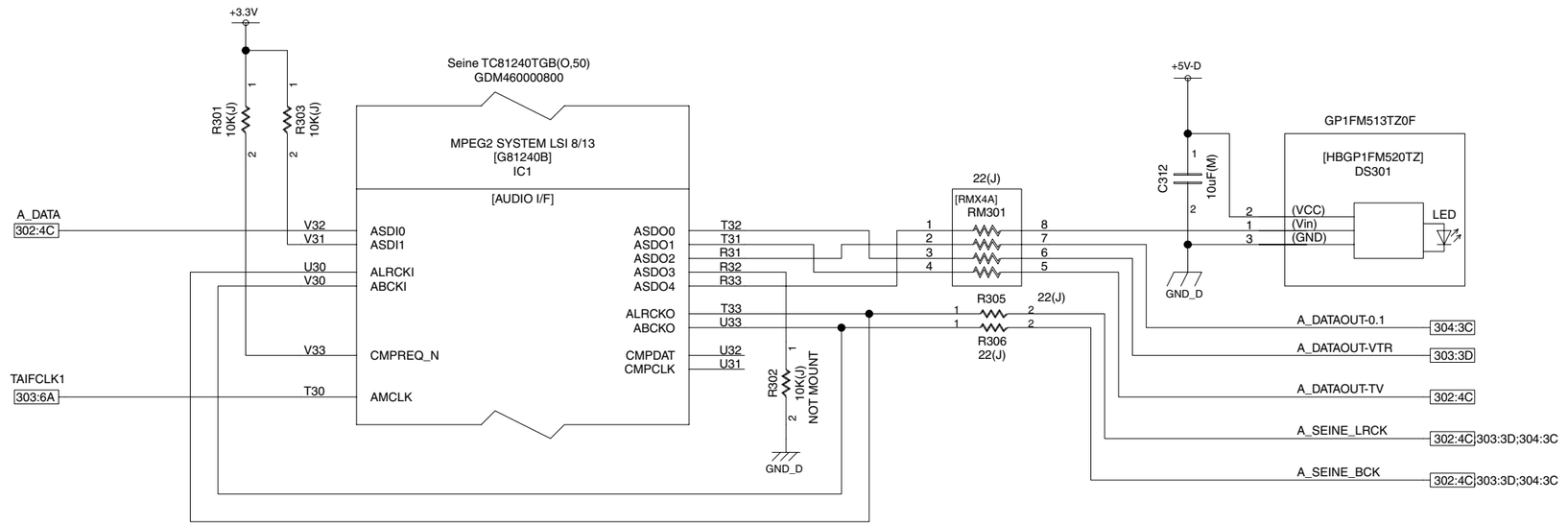




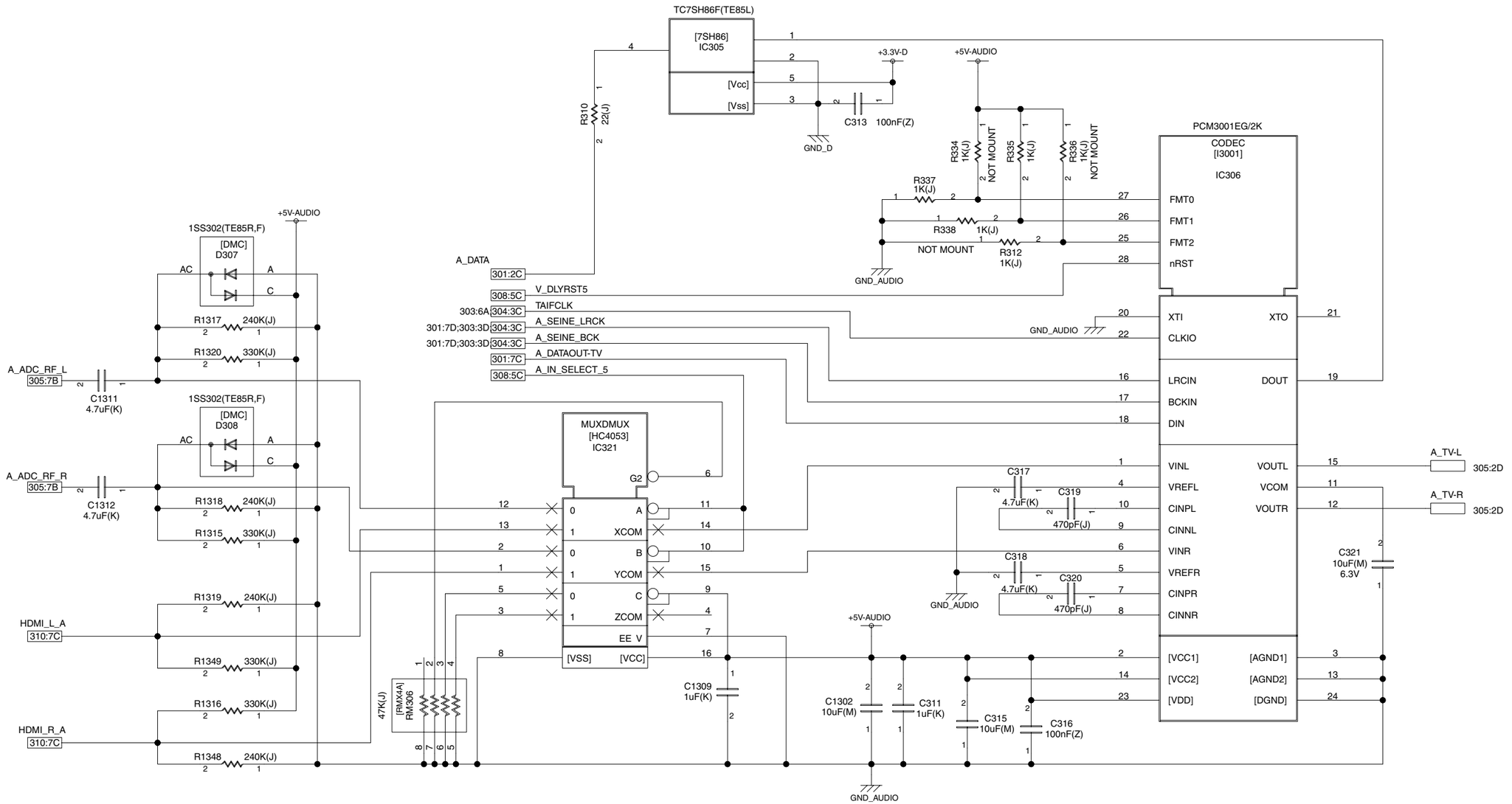


46HM94/52HM94/62HM94
SEINE_PJTV (AUDIO_POWER)

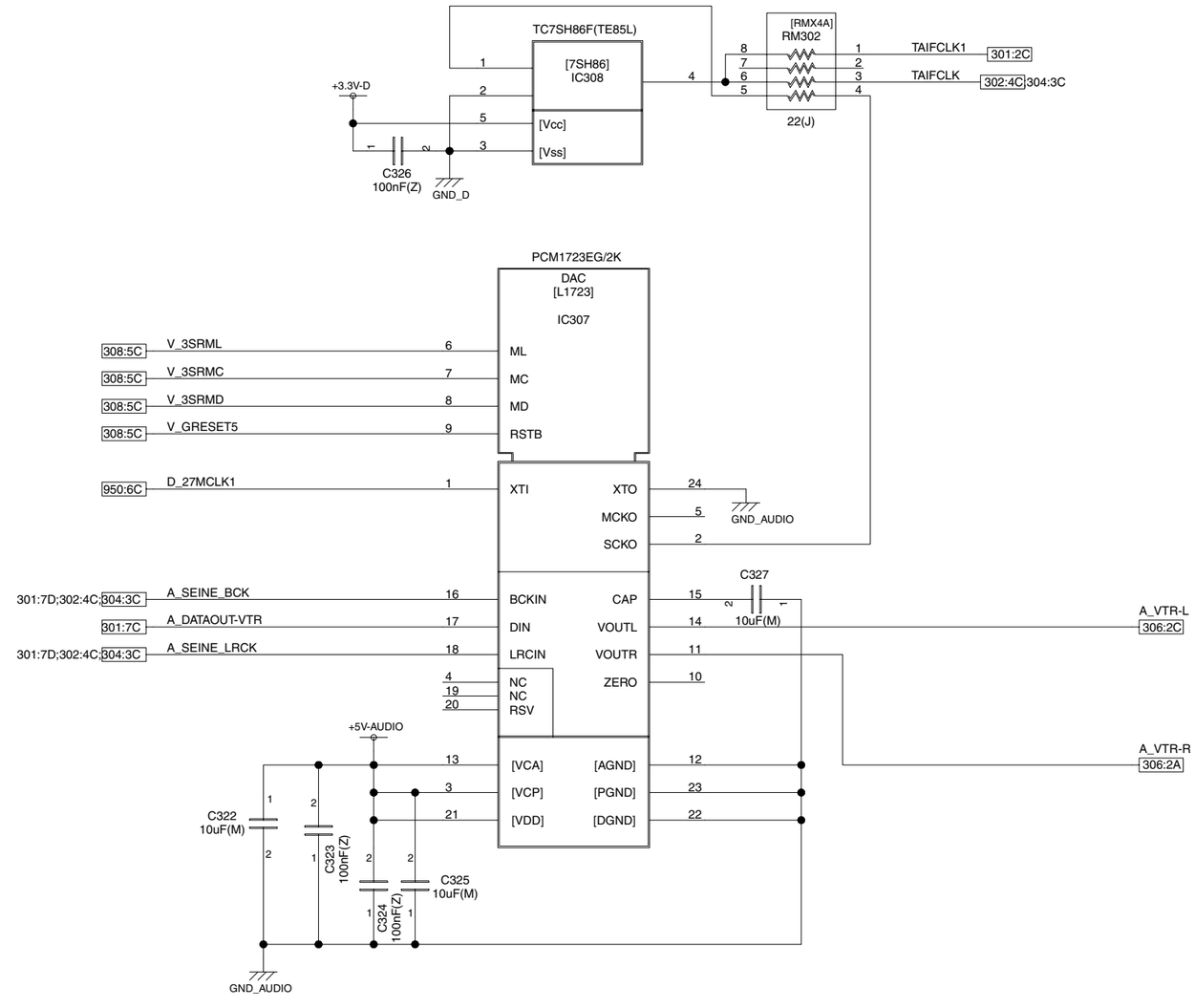
SH.NO.
300



46HM94/52HM94/62HM94 SH.NO.
SEINE_PJTV (SEINE_AUDIO_I/F) 301

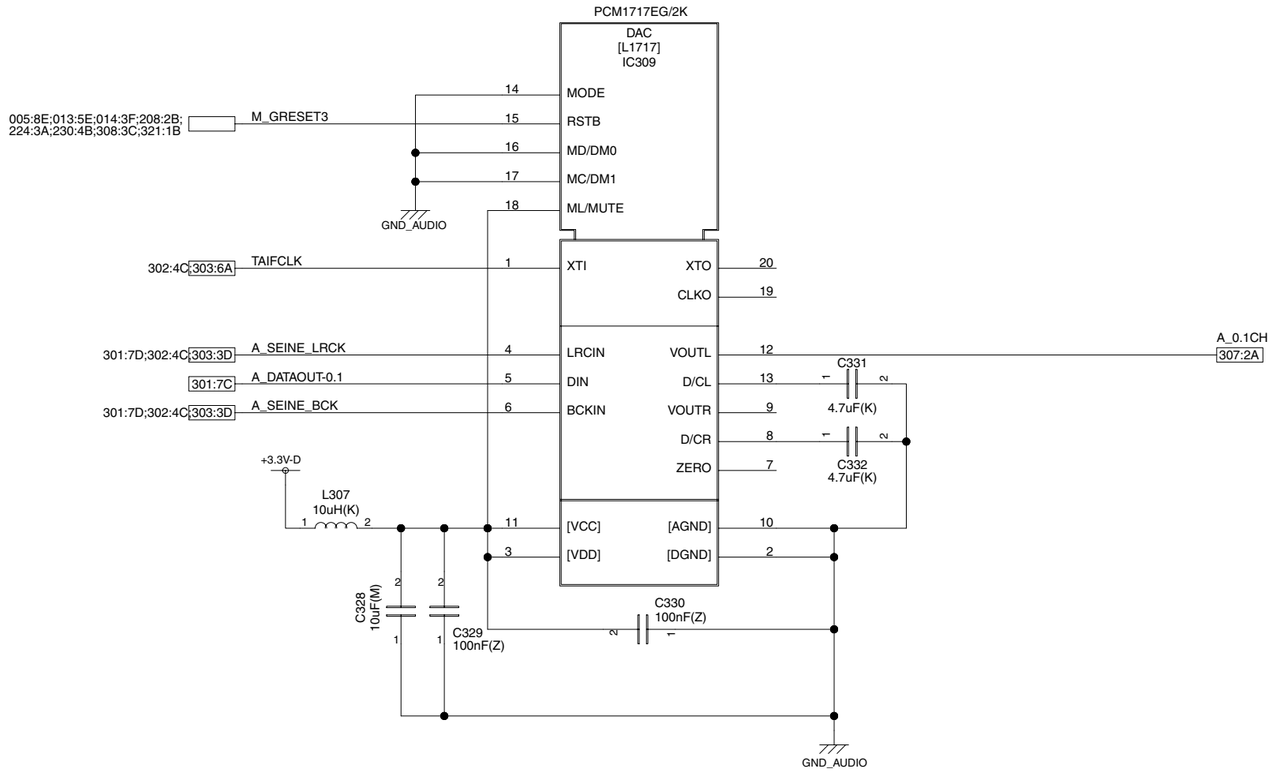


46HM94/52HM94/62HM94
SEINE_PJTV (AUDIO_ADC/DAC) SH.NO. 302



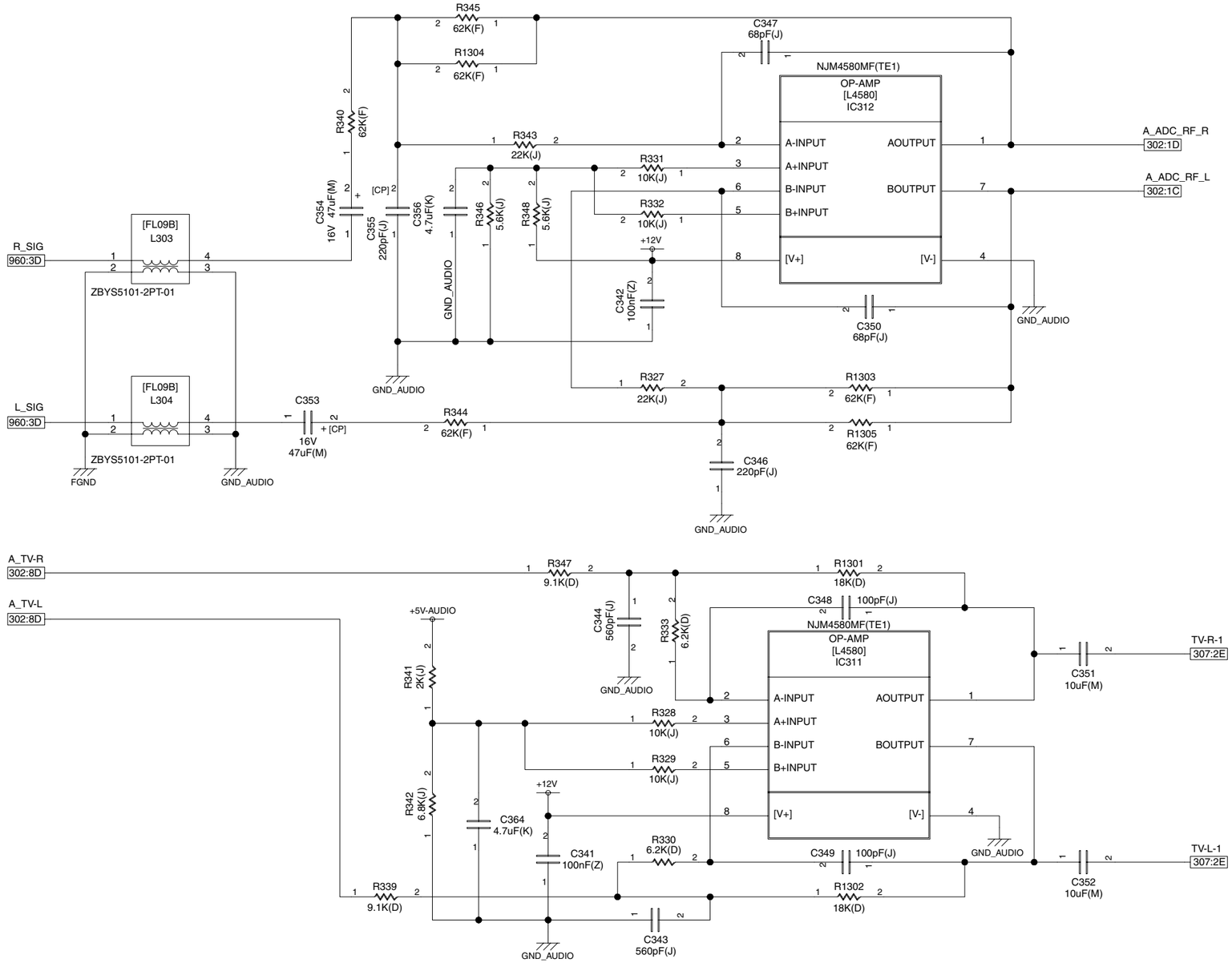
46HM94/52HM94/62HM94
SEINE_PJTV (AUDIO_PLL/DAC)

SH.NO.
303

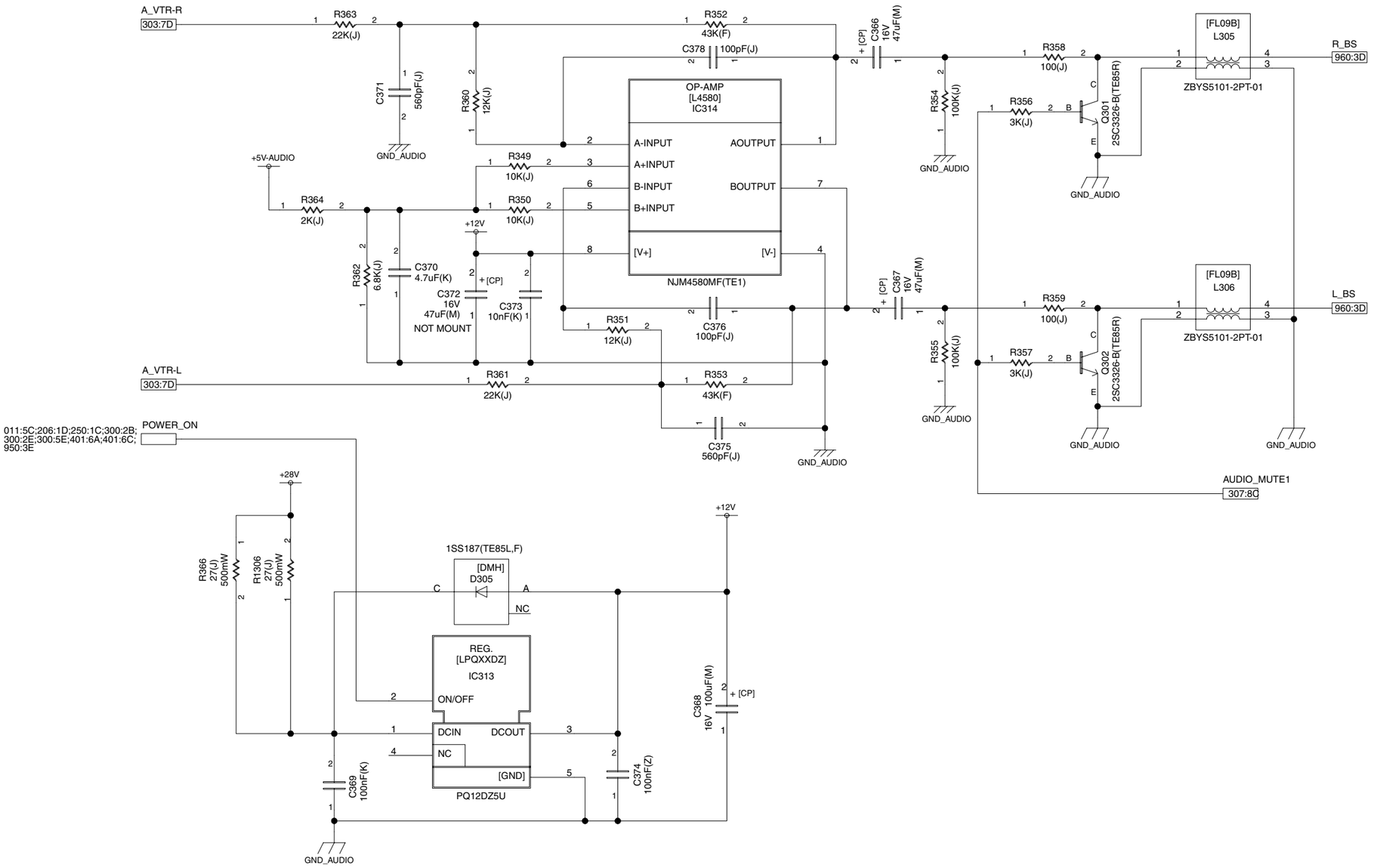


46HM94/52HM94/62HM94
SEINE_PJTV (AUDIO_DAC-01CH_OUT)

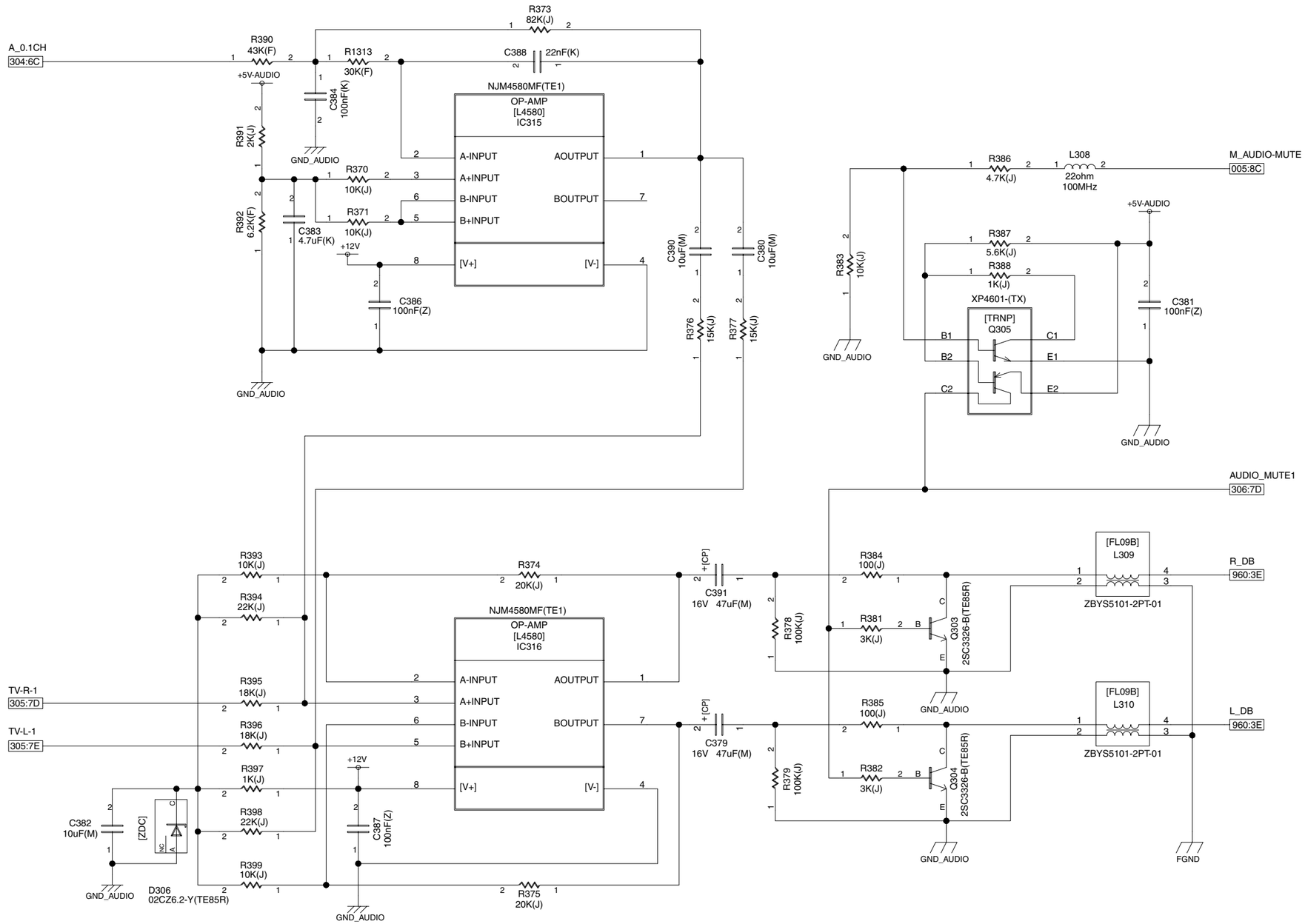
SH.NO.
304



46HM94/52HM94/62HM94 SH.NO.
SEINE_PJTV (AUDIO_TV-IN/OUT) 305

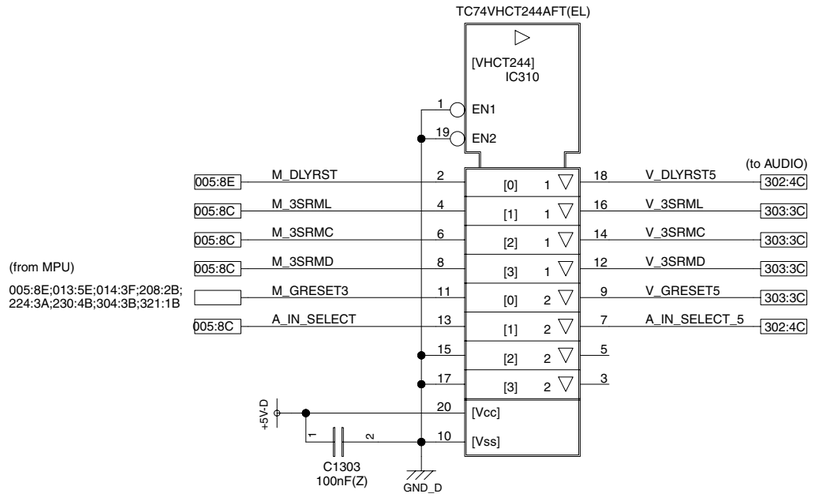


46HM94/52HM94/62HM94 SH.NO.
SEINE_PJTV (AUDIO_VTR_OUT) 306

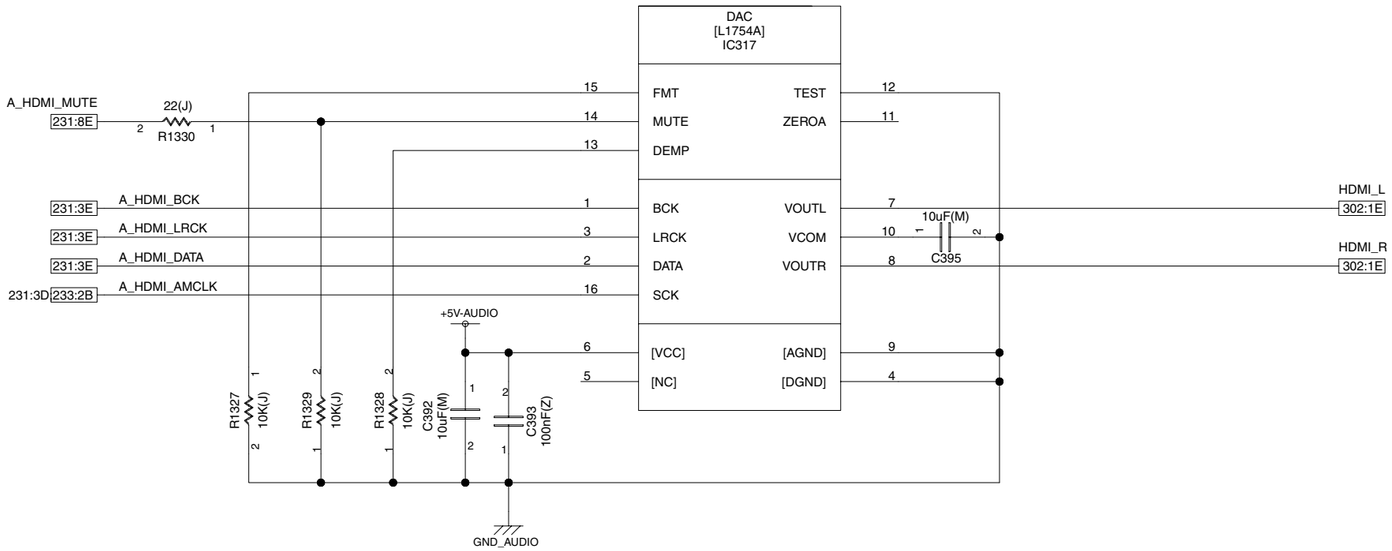


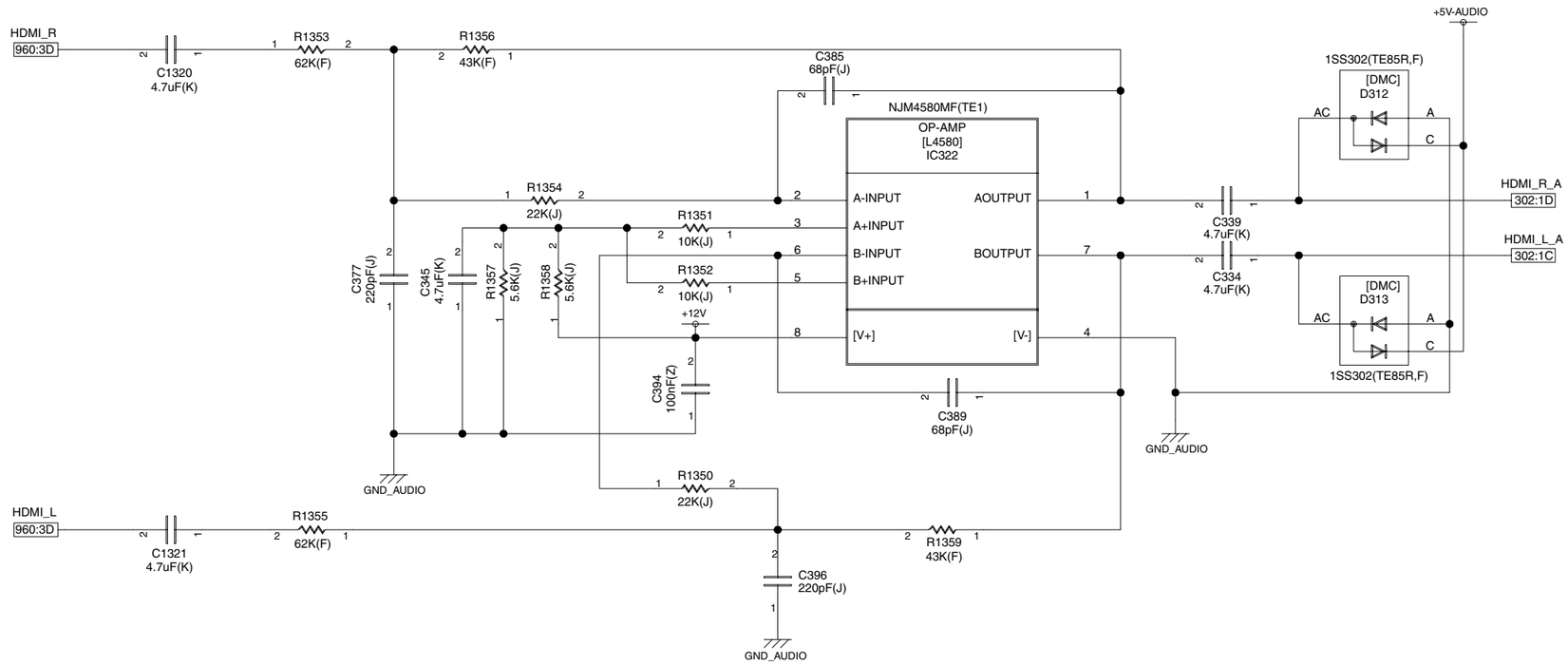
46HM94/52HM94/62HM94
SEINE_PJTV (AUDIO_01CH_OUT_MIX)

SH.NO. 307



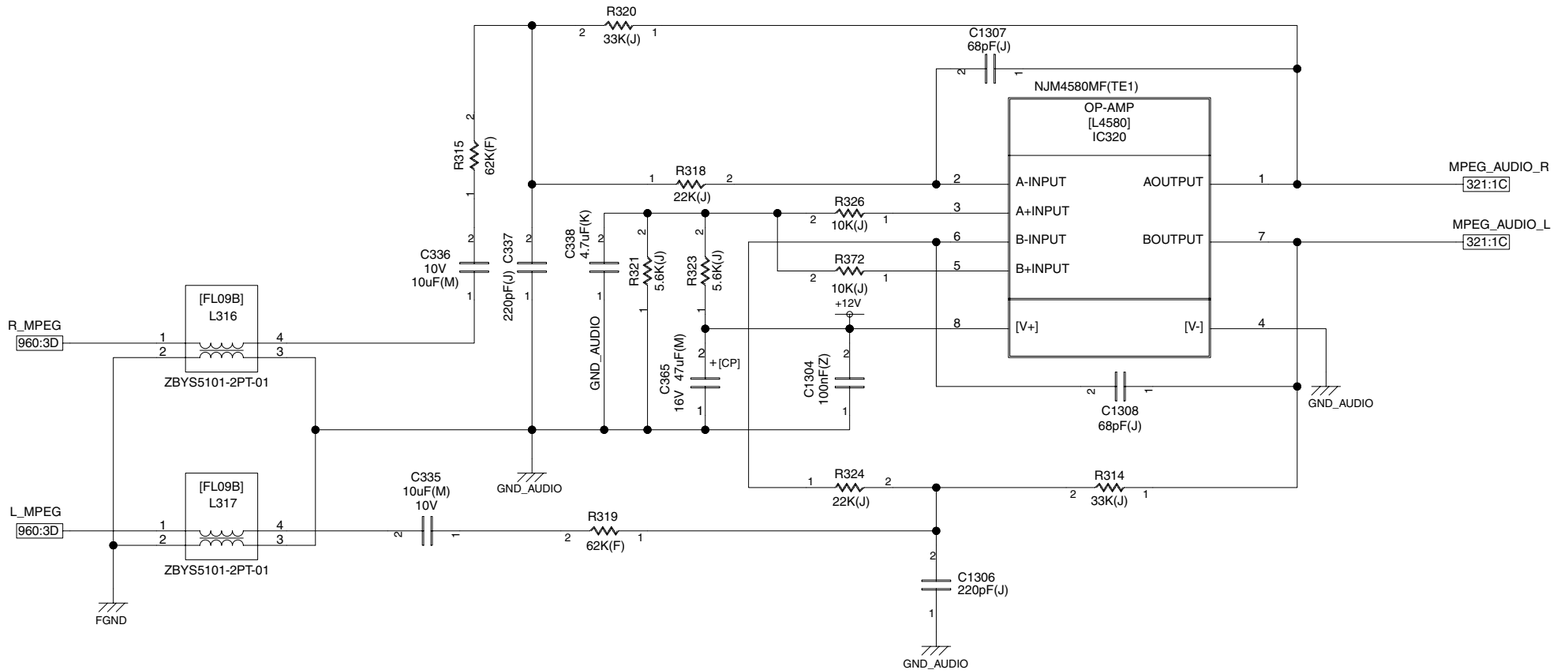
46HM94/52HM94/62HM94 SH.NO.
SEINE_PJTV (AUDIO_CONT) 308


DAC
[L1754A]
IC317
FMT
MUTE
DEMP
BCK
LRCK
DATA
SCK
[VCC]
[NC]
TEST
ZEROA
VOUTL
VCOM
VOUTR
[AGND]
[DGND]
A_HDMI_MUTE
231:8E
22(J)
R1330
231:3E
A_HDMI_BCK
231:3E
A_HDMI_LRCK
231:3E
A_HDMI_DATA
231:3D
233:2B
A_HDMI_AMCLK
+5V-AUDIO
R1327
10K(J)
R1329
10K(J)
R1328
10K(J)
C392
10uF(M)
C393
100nF(Z)
GND_AUDIO
10uF(M)
C395
HDMI_L
302:1E
HDMI_R
302:1E

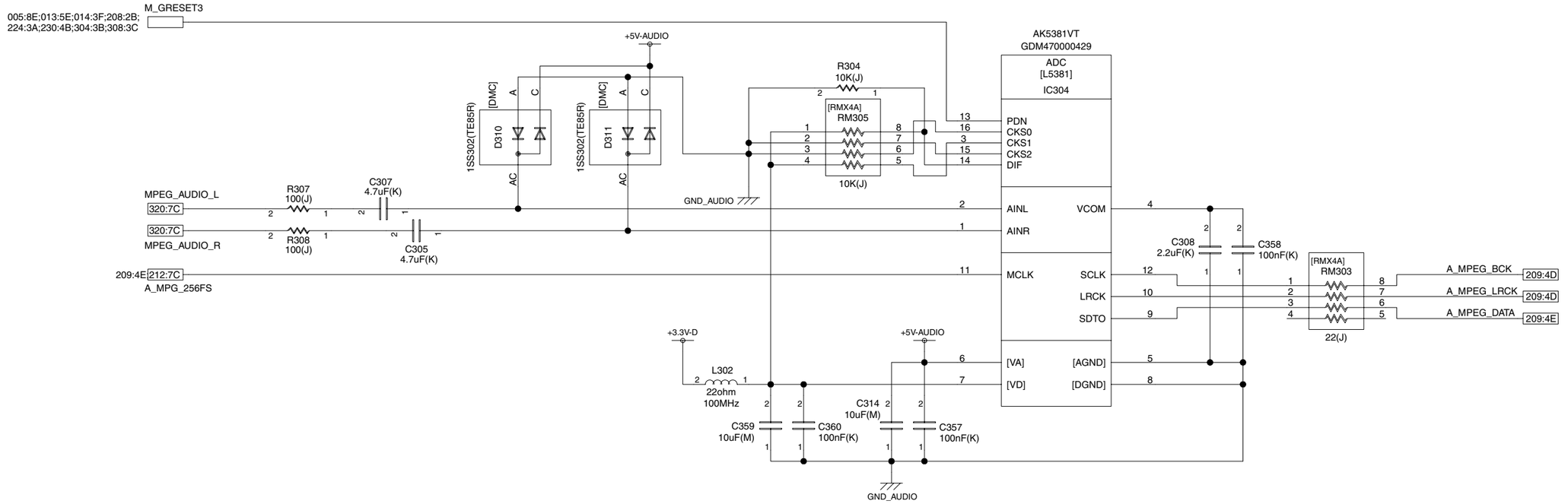


46HM94/52HM94/62HM94
SEINE_PJTV (HDMI_AUDIO_OUT)

SH.NO.
311

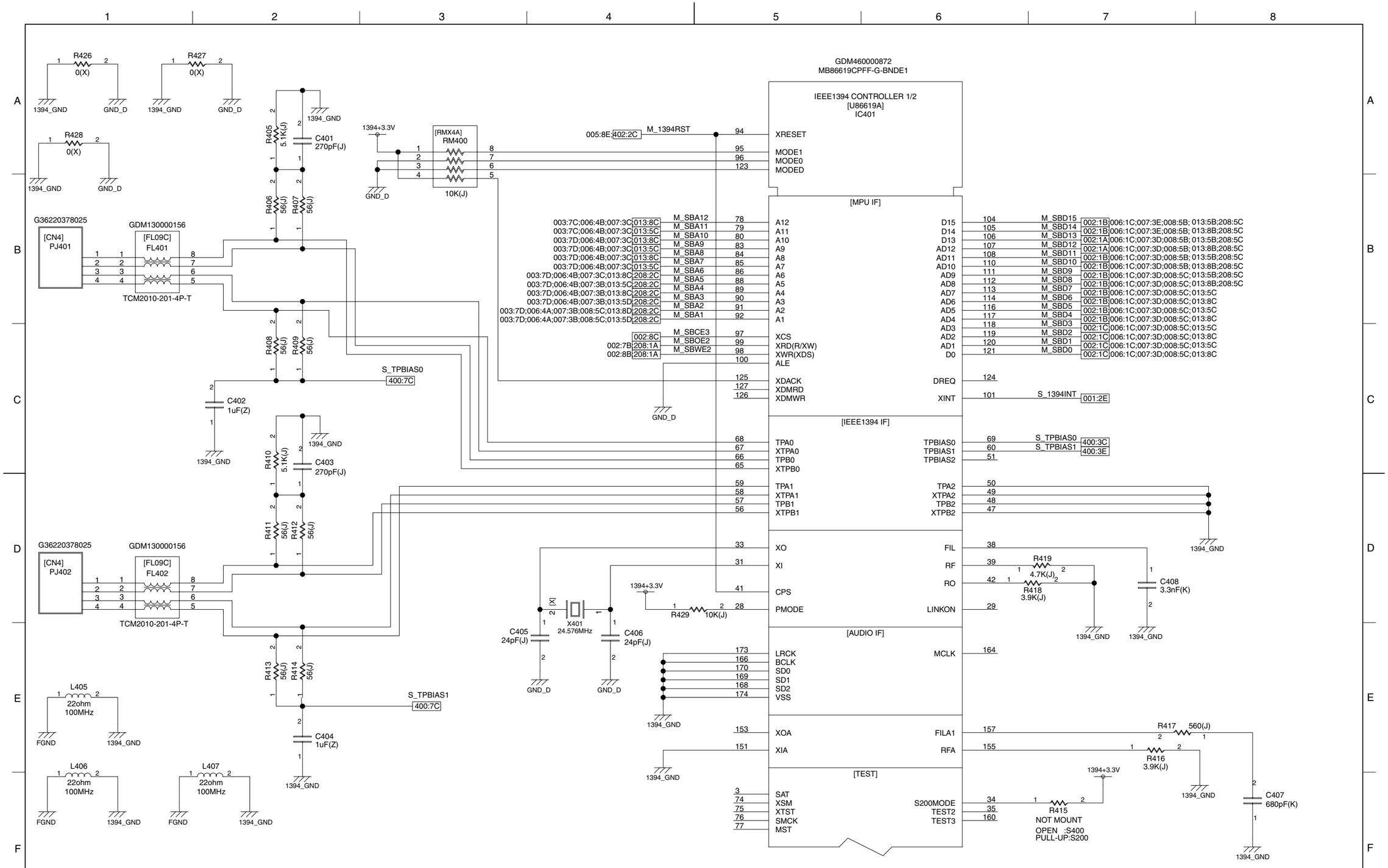


46HM94/52HM94/62HM94 SH.NO.
SEINE_PJTV (MPEG_AUDIO_IN) 320



46HM94/52HM94/62HM94
SEINE_PJTV (MPEG_AUDIO_ADC)

SH.NO.
321



46HM94/52HM94/62HM94
SEINE_PJTV (IEEE1394_1)

SH.NO.
400

GDM460000872
MB86619CPFF-G-BNDE1

IEEE1394 CONTROLLER 2/2
[U86619A]
IC401

[ISOCHRONOUS IF]

402:4C;402:7C S_TSVLD 12 TSVALIDA
402:4C;402:7C S_TSSYNC 10 TSSYNCA
402:4C;402:7C S_TSCLK 8 TSCLKA
402:2C;402:7C S_TSCGMS 26 DSSCLKA

402:4D;402:7D S_TSDAT7 13 TSDA7
402:4D;402:7D S_TSDAT6 14 TSDA6
402:4D;402:7D S_TSDAT5 15 TSDA5
402:4D;402:7D S_TSDAT4 16 TSDA4
402:4C;402:7D S_TSDAT3 18 TSDA3
402:4C;402:7D S_TSDAT2 19 TSDA2
402:4C;402:7E S_TSDAT1 20 TSDA1
402:4C;402:7E S_TSDAT0 21 TSDA0
TSCGMSA 11

110:2D S_TS1VLD R421 100(J) R420 100(J) 133 TSVALIB/DMD12
110:2D S_TS1SYNC 131 TSSYNCB/DMD14
110:2D S_TS1CLK R422 100(J) 129 TSCLKB/DMD15
149 DSSCLKB/DMD0

100(J)
[RMX4A] RM401
110:2C S_TS1DATA7 1 8 135 TSDB7/DMD11
110:2C S_TS1DATA6 2 7 136 TSDB6/DMD10
110:2C S_TS1DATA5 3 6 137 TSDB5/DMD9
110:2C S_TS1DATA4 4 5 138 TSDB4/DMD8
[RMX4A] RM402
110:2C S_TS1DATA3 1 8 140 TSDB3/DMD7
110:2C S_TS1DATA2 2 7 141 TSDB2/DMD6
110:2C S_TS1DATA1 3 6 142 TSDB1/DMD5
110:2C S_TS1DATA0 4 5 143 TSDB0/DMD4
100(J) 132 TSCGMSB/DMD13

1394+3.3V
1 ICLK
4 XIV

SELIOB/DMD2 146
SELTSPB/DMD1 147
IERRB/DMD3 145
R423 100(J) S_TS1ERR 110:2D

SELIOA 23
SELTSPA 24
IERRA 22

XILWRE 5
XFP 6

S1394+3.3V GND_D

[VDD/VSS]

L408 220ohm 100MHz
46 [AVD31]
52 [AVD32]
55 [AVD33]
61 [AVD34]
64 [AVD35]
70 [AVD36]
43 [AVD37]

S1394+2.5V
L409 220ohm 100MHz
37 [AVD22]
40 [AVD23]
156 [AVD24]
158 [AVD25]

1394+3.3V
2 [VDDE]
17 [VDDE]
32 [VDDE]
81 [VDDE]
109 [VDDE]
128 [VDDE]
139 [VDDE]
152 [VDDE]
171 [VDDE]

1394+2.5V
7 [VDDI]
27 [VDDI]
73 [VDDI]
87 [VDDI]
102 [VDDI]
122 [VDDI]
134 [VDDI]
148 [VDDI]
162 [VDDI]
165 [VDDI]
175 [VDDI]

[AVS31] 45
[AVS32] 53
[AVS33] 54
[AVS34] 62
[AVS35] 63
[AVS36] 71
[AVS37] 44

[AVS22] 36
[AVS24] 154
[AVS25] 159

1394_GND

R446 0(X) NOT MOUNT
W401 NOT MOUNT
W402 NOT MOUNT
W403 NOT MOUNT

[VSS] 9
[VSS] 25
[VSS] 30
[VSS] 72
[VSS] 82
[VSS] 93
[VSS] 103
[VSS] 115
[VSS] 130
[VSS] 144
[VSS] 150
[VSS] 161
[VSS] 163
[VSS] 167
[VSS] 172
[VSS] 176

GND_D

011:5C;206:1D;250:1C;300:2B;300:2E;300:5E;306:2D;401:6C;950:3E POWER_ON R424 100(J)
+5V
UREG [LPQXXXEZ] IC402
ON/OFF
DCIN DCOUT
NC
[GND]
PQ025EZ5MZPH
1SS187(TE85L)
[DMF] D401
C435 6V 47uF(M)
1394+2.5V
C434 100nF(Z)
GND_D

011:5C;206:1D;250:1C;300:2B;300:2E;300:5E;306:2D;401:6A;950:3E POWER_ON R425 100(J)
+5V
UREG [LPQXXXEZ] IC403
ON/OFF
DCIN DCOUT
NC
[GND]
PQ033EZ01ZPH
1SS187(TE85L)
[DMF] D402
C436 6V 47uF(M)
1394+3.3V
C437 100nF(Z)
GND_D

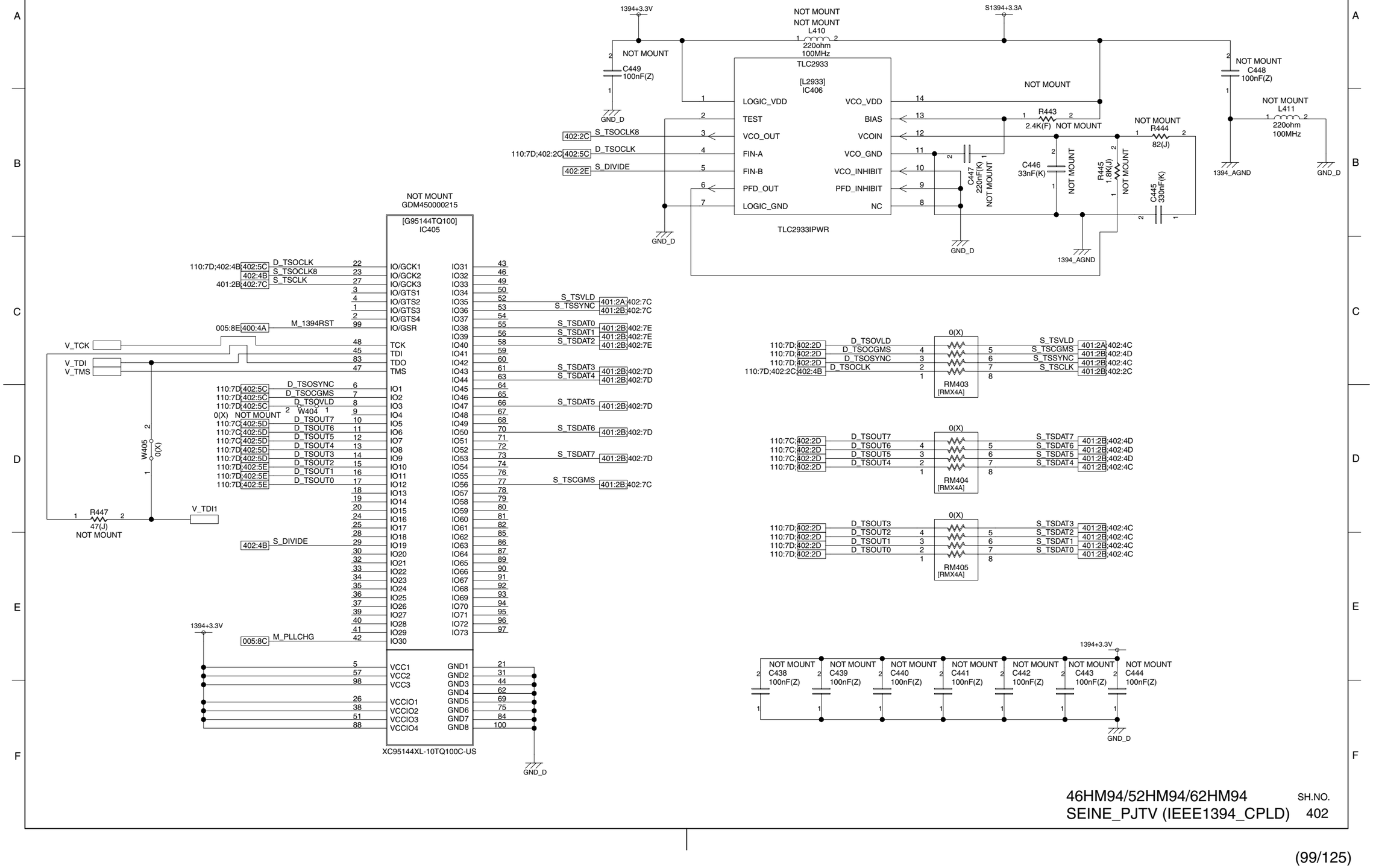
1394+2.5V
C409 100nF(Z) C410 100nF(Z) C411 100nF(Z) C412 100nF(Z) C413 100nF(Z) C414 100nF(Z)
GND_D

S1394+3.3V
C418 100nF(Z) C419 100nF(Z) C420 100nF(Z) C421 100nF(Z) [CP] C422 47uF(M) 6V
1394_GND

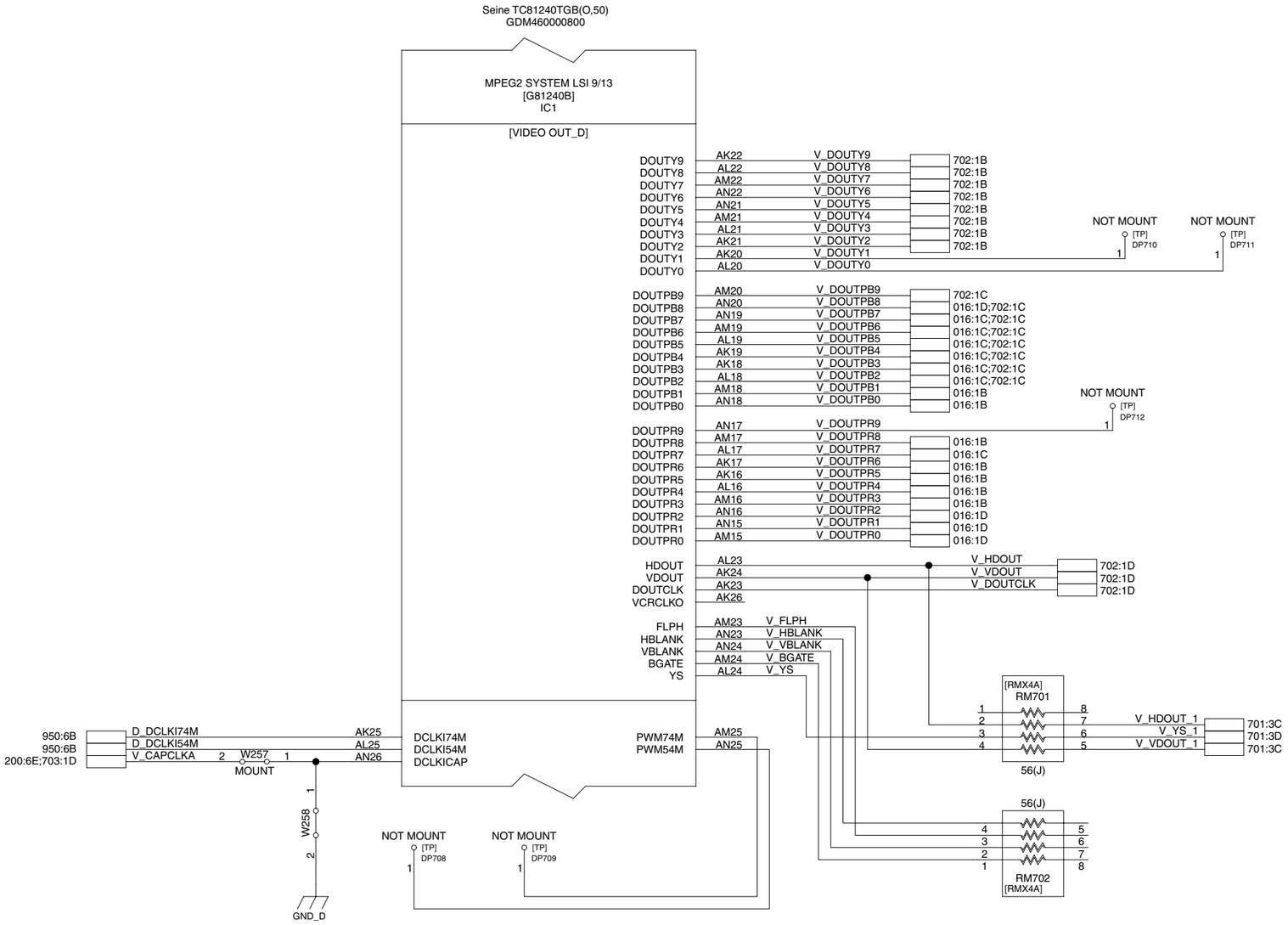
S1394+2.5V
C415 100nF(Z) C416 100nF(Z) [CP] C417 47uF(M) 6V
1394_GND

1394+3.3V
NOT MOUNT
[CP] C423 6.3V 47uF(M)
C424 100nF(Z) C425 100nF(Z) C426 100nF(Z) C427 100nF(Z) C428 100nF(Z) C429 100nF(Z) C430 100nF(Z) C431 100nF(Z)
NOT MOUNT C432 100nF(Z)
GND_D

46HM94/52HM94/62HM94
SEINE_PJTV (IEEE1394_2)
SH.NO. 401

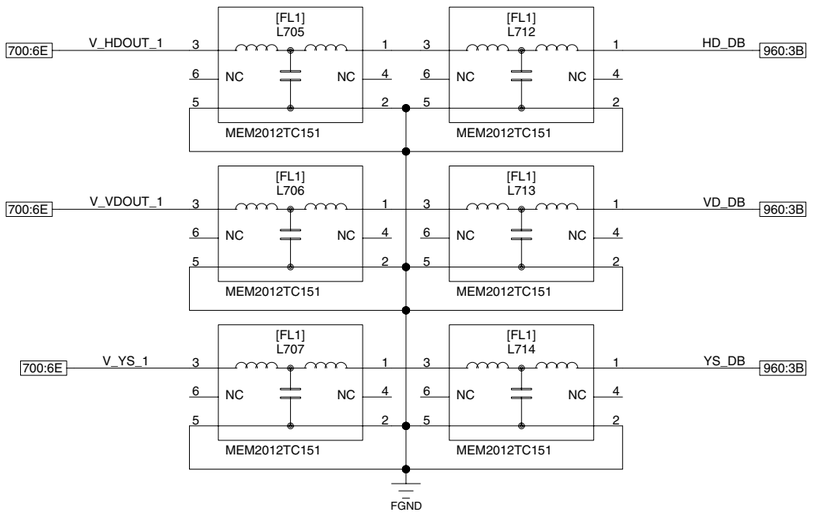


46HM94/52HM94/62HM94 SH.NO.
SEINE_PJTV (IEEE1394_CPLD) 402



46HM94/52HM94/62HM94 SH.NO.

SEINE_PJTV (VIDEO_OUT-SEINE_DIGITAL_OUT) 700



L601-L614: NotMount (PDP, LCOS)

PIO11(M_LVDSPDWN

L4000	New L4000
1 NORMAL	MUTE
0 MUTE	NORMAL

005:8C — M_LVDSPDWN

R706 100(J) — V_DOMUTE — 703:1A

NOT MOUNT R707 100(J)

R708 100(J) NOT MOUNT

+3.3V — R709 100(J) — GND_D

GDM450000288

BUS-I/F [EC16823] IC703

1OE, 1CLR, 1CLKEN, 1CLK, 2OE, 2CLR, 2CLKEN, 2CLK

SN74ALVCH16823DGGR

[VCC] ×4, [GND] ×8

NOT MOUNT C706 100nF(Z), NOT MOUNT C705 100nF(Z), C704 100nF(Z), C702 100nF(Z)

RM703 [RMX4A] 22(J)
700:5B V_DOUTY9 — V_DOYA9
700:5B V_DOUTY8 — V_DOYA8
700:5B V_DOUTY7 — V_DOYA7
700:5C V_DOUTY6 — V_DOYA6

RM704 [RMX4A] 22(J)
700:5C V_DOUTY5 — V_DOYA5
700:5C V_DOUTY4 — V_DOYA4
700:5C V_DOUTY3 — V_DOYA3
700:5C V_DOUTY2 — V_DOYA2

RM705 [RMX4A] 22(J)
700:5C V_DOUTPB9 — V_DOPBA9
016:1D;700:5C V_DOUTPB8 — V_DOPBA8
016:1C;700:5C V_DOUTPB7 — V_DOPBA7
016:1C;700:5C V_DOUTPB6 — V_DOPBA6

RM706 [RMX4A] 22(J)
016:1C;700:5C V_DOUTPB5 — V_DOPBA5
016:1C;700:5C V_DOUTPB4 — V_DOPBA4
016:1C;700:5C V_DOUTPB3 — V_DOPBA3
016:1C;700:5C V_DOUTPB2 — V_DOPBA2

700:5D V_HDOUT — R703 22(J) — V_DOHDA

700:5D V_VDOUT — R704 22(J) — V_DOVDA

700:5D V_DOUTCLK — R705 22(J)

V_DOYA2 … V_DOYA9, V_DOHDA → 1D1 … 1D9
V_DOPBA2 … V_DOPBA9, V_DOVDA → 2D1 … 2D9

1Q1 … 1Q9 → V_DOYB2, V_DOYB3, V_DOYB4, V_DOYB5, V_DOYB6, V_DOYB7, V_DOYB8, V_DOYB9, V_DOHDB
2Q1 … 2Q9 → V_DOPBB2, V_DOPBB3, V_DOPBB4, V_DOPBB5, V_DOPBB6, V_DOPBB7, V_DOPBB8, V_DOPBB9, V_DOVDB

RM707 [RMX4A] 22(J)
V_DOYB9 — V_SEINEY9
V_DOYB8 — V_SEINEY8
V_DOYB7 — V_SEINEY7
V_DOYB6 — V_SEINEY6

RM708 [RMX4A] 22(J)
V_DOYB5 — V_SEINEY5
V_DOYB4 — V_SEINEY4
V_DOYB3 — V_SEINEY3
V_DOYB2 — V_SEINEY2

RM709 [RMX4A] 22(J)
V_DOPBB9 — V_SEINEC9
V_DOPBB8 — V_SEINEC8
V_DOPBB7 — V_SEINEC7
V_DOPBB6 — V_SEINEC6

RM710 [RMX4A] 22(J)
V_DOPBB5 — V_SEINEC5
V_DOPBB4 — V_SEINEC4
V_DOPBB3 — V_SEINEC3
V_DOPBB2 — V_SEINEC2

V_DOHDB — R710 22(J) — V_SEINEHD
V_DOVDB — R711 22(J) — V_SEINEVD
R712 22(J) — V_SEINECLK

V_SEINEY9, V_SEINEY8, V_SEINEY7, V_SEINEY6, V_SEINEY5, V_SEINEY4, V_SEINEY3, V_SEINEY2
V_SEINEC9, V_SEINEC8, V_SEINEC7, V_SEINEC6, V_SEINEC5, V_SEINEC4, V_SEINEC3, V_SEINEC2
V_SEINECLK, V_SEINEHD, V_SEINEVD

GDM450000195

BUS SWITCH [CL1G125] IC701

OE, A → Y

[VCC], [GND]

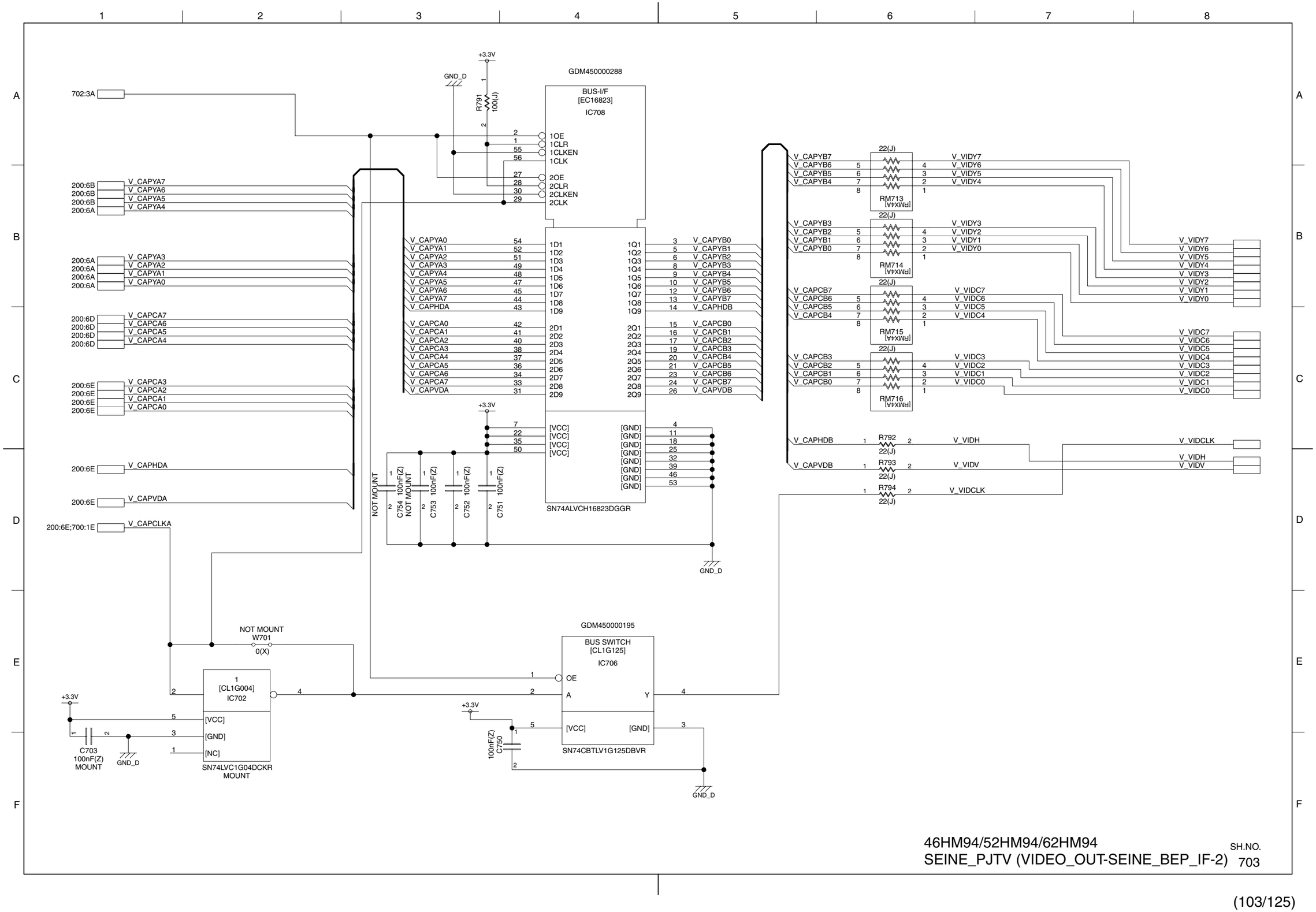
100nF(Z) C701

SN74CBTLV1G125DBVR

GND_D

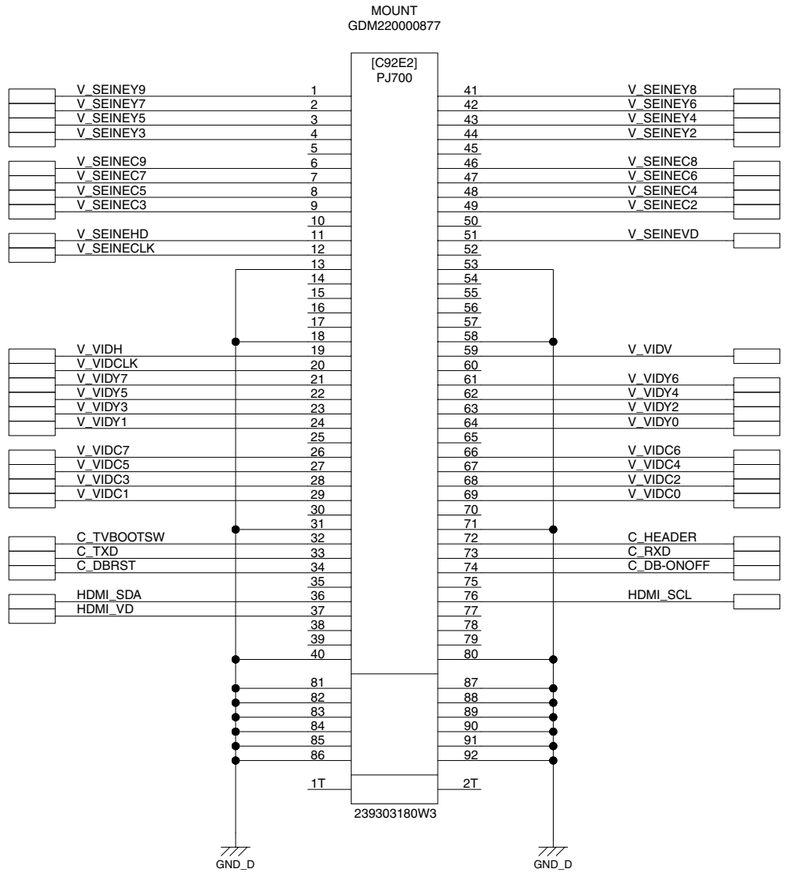
46HM94/52HM94/62HM94
SEINE_PJTV (VIDEO_OUT-SEINE_BEP_IF)

SH.NO. 702



46HM94/52HM94/62HM94
SEINE_PJTV (VIDEO_OUT-SEINE_BEP_IF-2)

SH.NO. 703



46HM94/52HM94/62HM94 SH.NO.
SEINE_PJTV (VIDEO_OUT-SEINE_BEP_IF-3) 704

Seine TC81240TGB(O,50)
GDM460000800

MPEG2 SYSTEM LSI 10/13
[G81240B]
IC1

[VIDEO OUT_A]

YOUT AE31
PBOUT AF31
PROUT AG31

VCRYOUT AA31
VCRCOUT AB31
VCRCVOUT AC31

YNEG AE32
PBNEG AF32
PRNEG AG32

VCRYNEG AA32
VCRCNEG AB32
VCRCVNEG AC32

HSYNC AL28
VSYNC AM28
FASTBLK AK28
CSYNC1 AN27
CSYNC0 AN28

[TP] DP703
[TP] DP704
[TP] DP705
[TP] DP706
[TP] DP707

+2.5V-SEINEDAC

FSADJ_HD AE33
FSADJ_VCR AA33
VBS_HD AF33
VBS_VCR AB33
VREF_HD AG33
VREF_VCR AC33

C718 0.1uF(Z)
C719 0.1uF(Z)
C720 0.1uF(Z)
R714 300(F)
C721 0.1uF(Z)
R715 300(F)
C722 0.1uF(Z)
C723 0.1uF(Z)

+2.5V-SEINEDAC

AD29 DPVD_HD
AA29 DPVD_VCR
AD30 APVD_HD1
AE30 APVD_HD2
AF30 APVD_HD3
AA30 APVD_VCR1
AB30 APVD_VCR2
AC30 APVD_VCR3

DPVS_HD AE29
DPVS_VCR AB29
APVS_HD AF29
APVS_VCR AC29

C709 0.1uF(Z)
C710 0.1uF(Z)
C712 0.1uF(Z)
C714 0.01uF(K)
C716 0.01uF(K)
C717 0.01uF(K)
C713 0.1uF(Z)
C715 0.1uF(Z)

GND_A

V_YOUT 711:2B
V_PBOUT 711:2D
V_PROUT 711:2E

R722 75(F)
R726 75(F)
R730 75(F)

V_VCRCVOUT 715:1A

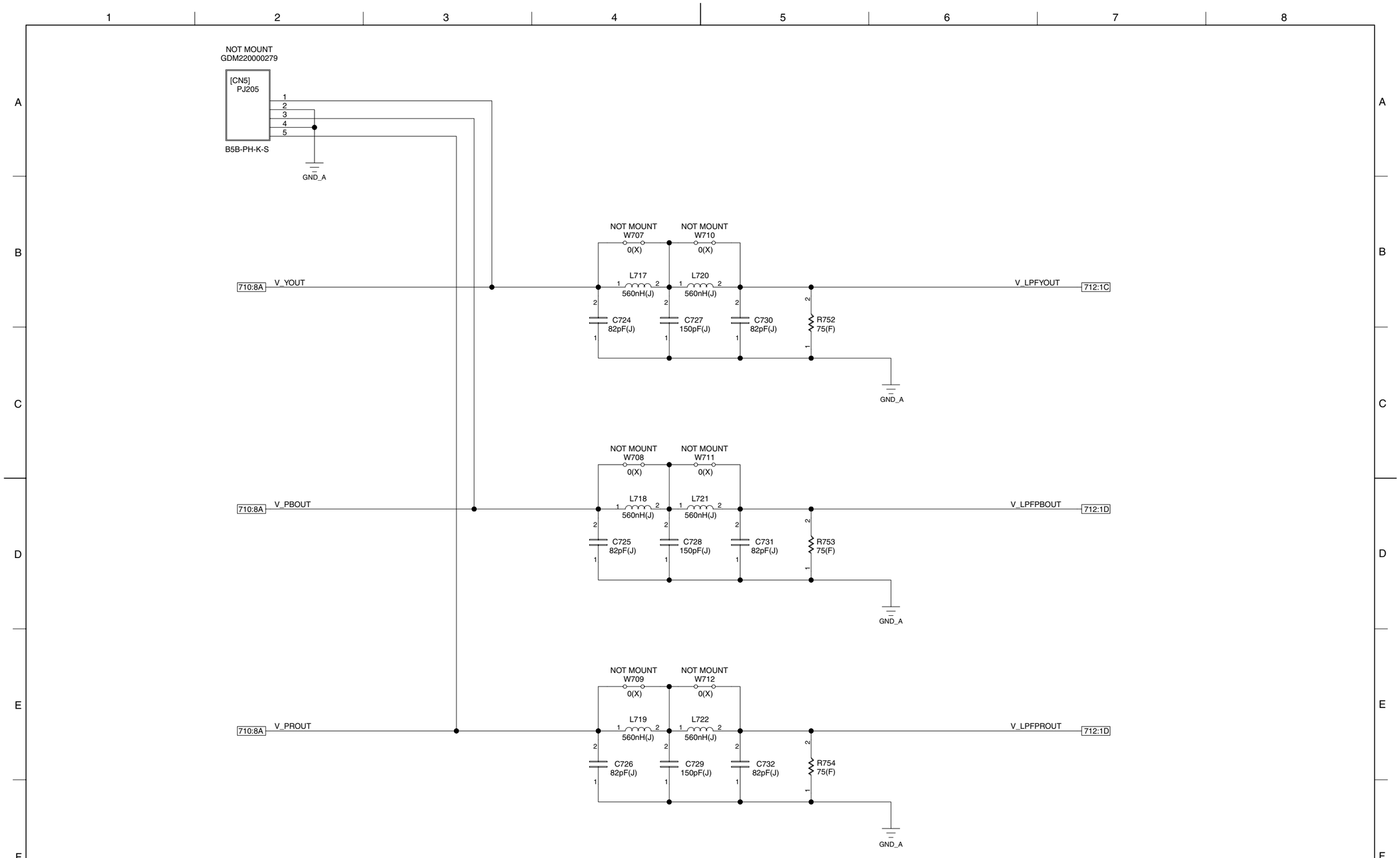
R734 75(F)
R723 68(F)
R735 75(F)
R727 68(F)
R736 75(F)
R731 68(F)

R716 75(J)
R718 75(J)
R720 75(J)
R724 75(J)
R728 75(J)
R732 75(J)

R717 75(J)
R719 75(J)
R721 75(J)
R725 75(J)
R729 75(J)
R733 75(J)

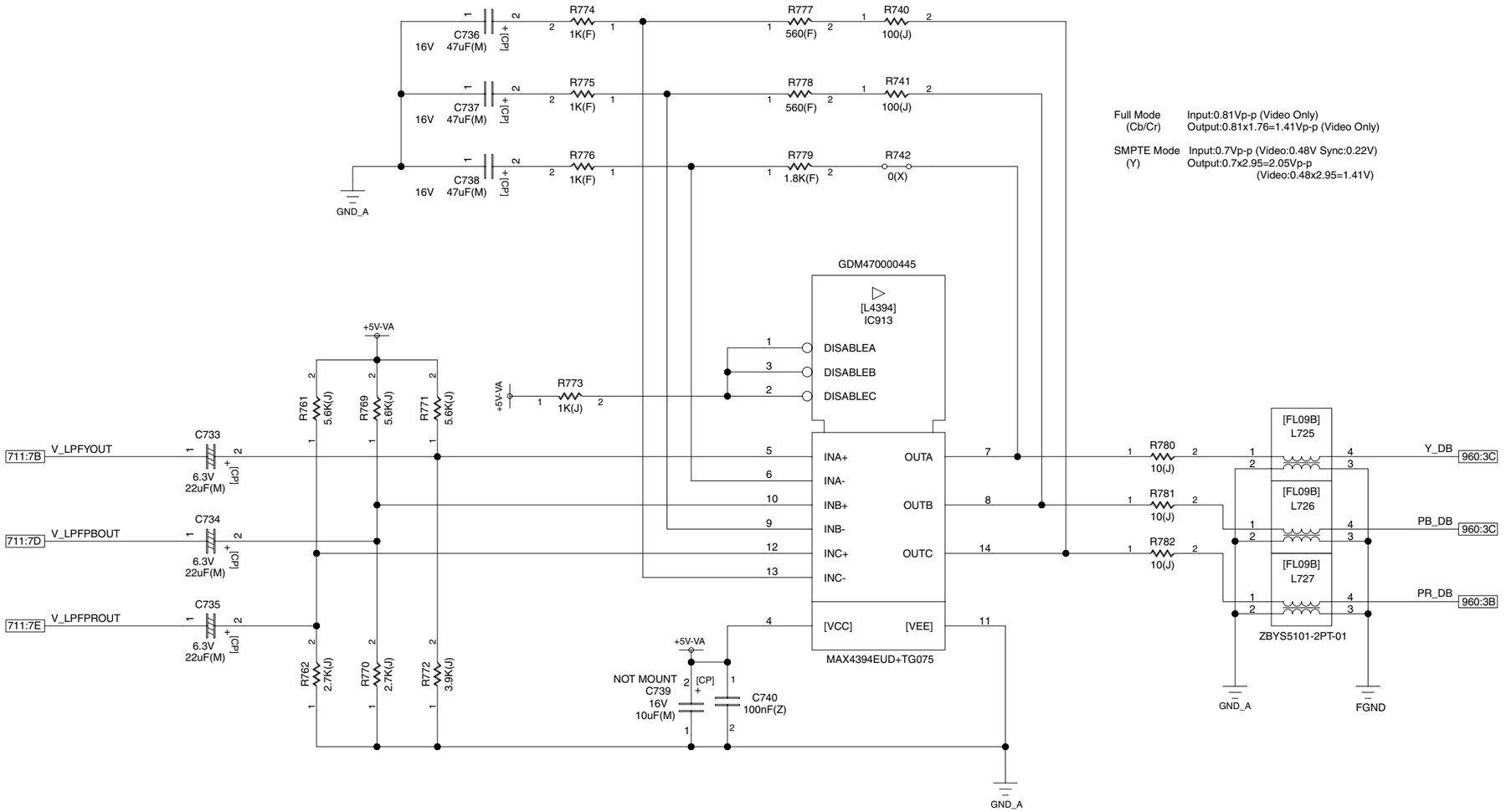
46HM94/52HM94/62HM94
SEINE_PJTV (VIDEO_OUT-SEINE_DAOUT)

SH.NO. 710

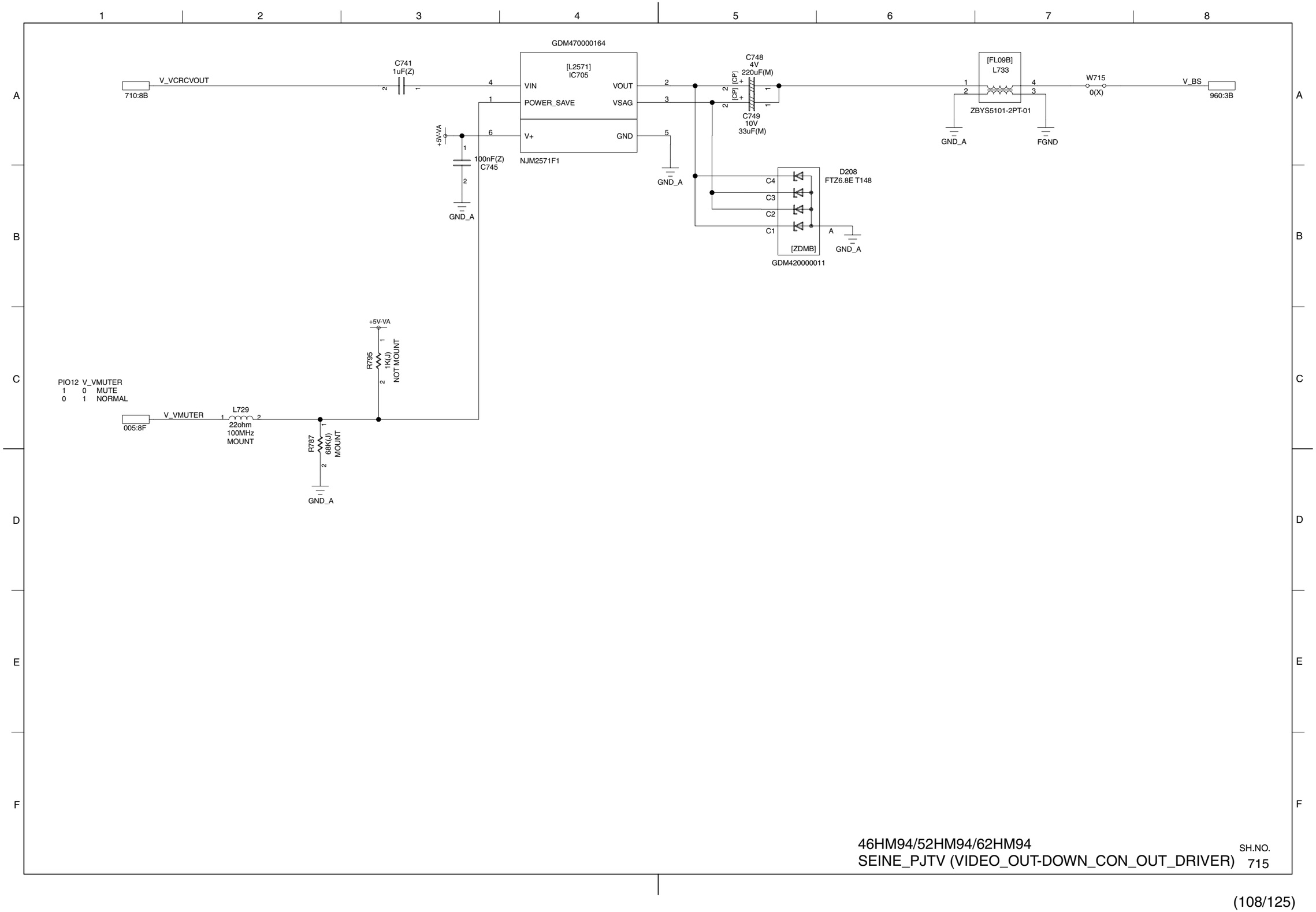


46HM94/52HM94/62HM94
SEINE_PJTV (VIDEO_OUT-HD_OUT_LPF)

SH.NO.
711

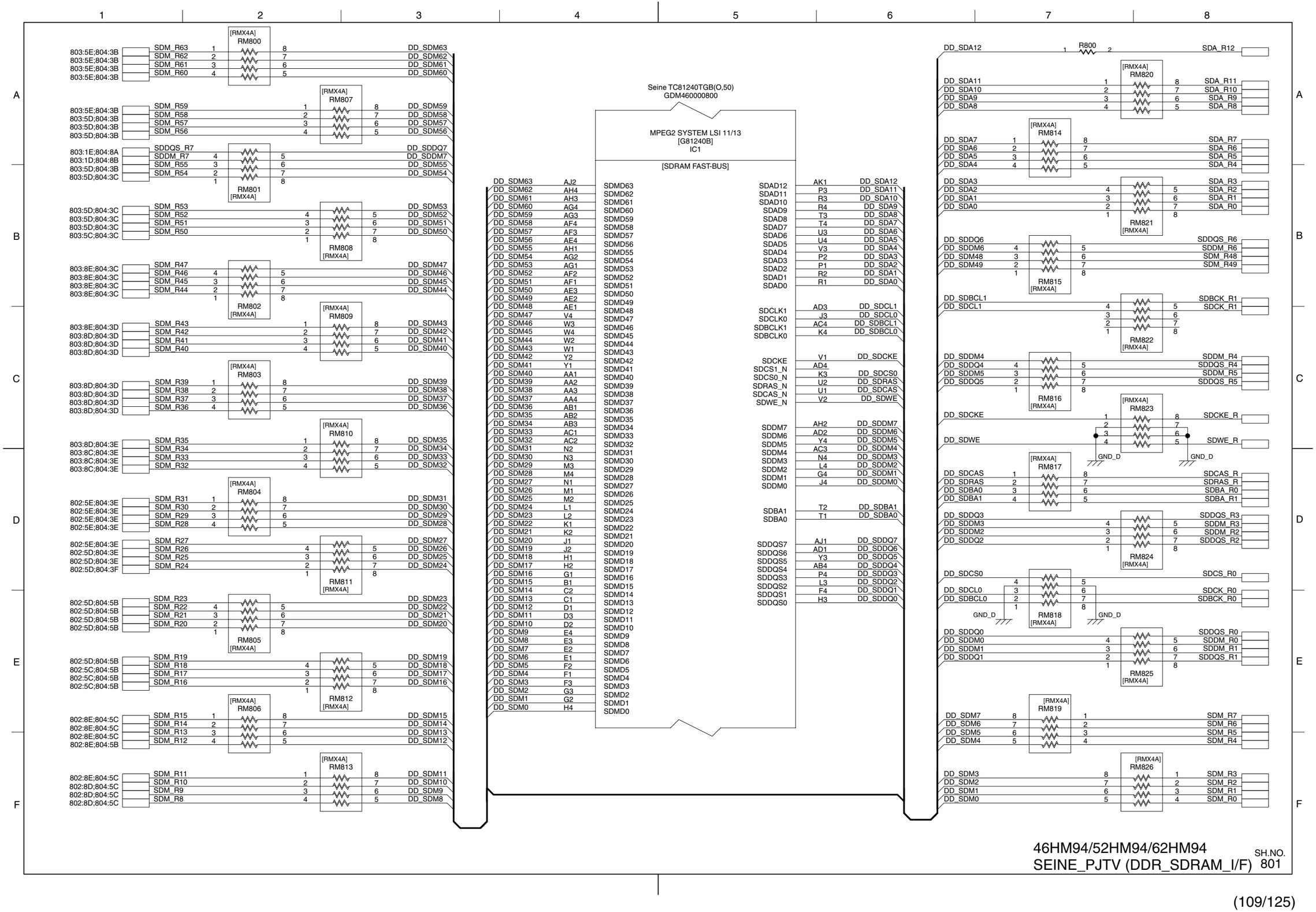


46HM94/52HM94/62HM94 SH.NO.
SEINE_PJTV (VIDEO_OUT-HD_OUT_DRIVER) 712



46HM94/52HM94/62HM94
SEINE_PJTV (VIDEO_OUT-DOWN_CON_OUT_DRIVER)

SH.NO. 715


Seine TC81240TGB(O,50)
GDM460000800
MPEG2 SYSTEM LSI 11/13
[G81240B]
IC1
[SDRAM FAST-BUS]
SDMD63 AJ2
SDMD62 AH4
SDMD61 AH3
SDMD60 AG4
SDMD59 AG3
SDMD58 AF4
SDMD57 AF3
SDMD56 AE4
SDMD55 AH1
SDMD54 AG2
SDMD53 AG1
SDMD52 AF2
SDMD51 AF1
SDMD50 AE3
SDMD49 AE2
SDMD48 AE1
SDMD47 V4
SDMD46 W3
SDMD45 W4
SDMD44 W2
SDMD43 W1
SDMD42 Y2
SDMD41 Y1
SDMD40 AA1
SDMD39 AA2
SDMD38 AA3
SDMD37 AA4
SDMD36 AB1
SDMD35 AB2
SDMD34 AB3
SDMD33 AC1
SDMD32 AC2
SDMD31 N2
SDMD30 N3
SDMD29 M3
SDMD28 M4
SDMD27 N1
SDMD26 M1
SDMD25 M2
SDMD24 L1
SDMD23 L2
SDMD22 K1
SDMD21 K2
SDMD20 J1
SDMD19 J2
SDMD18 H1
SDMD17 H2
SDMD16 G1
SDMD15 B1
SDMD14 C2
SDMD13 C1
SDMD12 D1
SDMD11 D3
SDMD10 D2
SDMD9 E4
SDMD8 E3
SDMD7 E2
SDMD6 E1
SDMD5 F2
SDMD4 F1
SDMD3 F3
SDMD2 G3
SDMD1 G2
SDMD0 H4
SDAD12 AK1
SDAD11 P3
SDAD10 R3
SDAD9 R4
SDAD8 T3
SDAD7 T4
SDAD6 U3
SDAD5 U4
SDAD4 V3
SDAD3 P2
SDAD2 P1
SDAD1 R2
SDAD0 R1
SDCLK1 AD3
SDCLK0 J3
SDBCLK1 AC4
SDBCLK0 K4
SDCKE V1
SDCS1_N AD4
SDCS0_N K3
SDRAS_N U2
SDCAS_N U1
SDWE_N V2
SDDM7 AH2
SDDM6 AD2
SDDM5 Y4
SDDM4 AC3
SDDM3 N4
SDDM2 L4
SDDM1 G4
SDDM0 J4
SDBA1 T2
SDBA0 T1
SDDQS7 AJ1
SDDQS6 AD1
SDDQS5 Y3
SDDQS4 AB4
SDDQS3 P4
SDDQS2 L3
SDDQS1 F4
SDDQS0 H3
DD_SDM63 DD_SDM62 DD_SDM61 DD_SDM60 DD_SDM59 DD_SDM58 DD_SDM57 DD_SDM56 DD_SDM55 DD_SDM54 DD_SDM53 DD_SDM52 DD_SDM51 DD_SDM50 DD_SDM49 DD_SDM48 DD_SDM47 DD_SDM46 DD_SDM45 DD_SDM44 DD_SDM43 DD_SDM42 DD_SDM41 DD_SDM40 DD_SDM39 DD_SDM38 DD_SDM37 DD_SDM36 DD_SDM35 DD_SDM34 DD_SDM33 DD_SDM32 DD_SDM31 DD_SDM30 DD_SDM29 DD_SDM28 DD_SDM27 DD_SDM26 DD_SDM25 DD_SDM24 DD_SDM23 DD_SDM22 DD_SDM21 DD_SDM20 DD_SDM19 DD_SDM18 DD_SDM17 DD_SDM16 DD_SDM15 DD_SDM14 DD_SDM13 DD_SDM12 DD_SDM11 DD_SDM10 DD_SDM9 DD_SDM8 DD_SDM7 DD_SDM6 DD_SDM5 DD_SDM4 DD_SDM3 DD_SDM2 DD_SDM1 DD_SDM0
DD_SDA12 DD_SDA11 DD_SDA10 DD_SDA9 DD_SDA8 DD_SDA7 DD_SDA6 DD_SDA5 DD_SDA4 DD_SDA3 DD_SDA2 DD_SDA1 DD_SDA0 DD_SDDQ7 DD_SDDM7 DD_SDDM6 DD_SDDM5 DD_SDDM4 DD_SDDM3 DD_SDDM2 DD_SDDM1 DD_SDDM0 DD_SDBA1 DD_SDBA0 DD_SDDQ6 DD_SDDQ5 DD_SDDQ4 DD_SDDQ3 DD_SDDQ2 DD_SDDQ1 DD_SDDQ0 DD_SDCL1 DD_SDBCL1 DD_SDCKE DD_SDWE DD_SDCAS DD_SDRAS DD_SDCS0
SDA_R12 SDA_R11 SDA_R10 SDA_R9 SDA_R8 SDA_R7 SDA_R6 SDA_R5 SDA_R4 SDA_R3 SDA_R2 SDA_R1 SDA_R0 SDDQS_R6 SDDM_R6 SDM_R48 SDM_R49 SDBCK_R1 SDCK_R1 SDDM_R4 SDDQS_R4 SDDM_R5 SDDQS_R5 SDCKE_R SDWE_R SDCAS_R SDRAS_R SDBA_R0 SDBA_R1 SDDQS_R3 SDDM_R3 SDDM_R2 SDDQS_R2 SDCS_R0 SDCK_R0 SDBCK_R0 SDDQS_R0 SDDM_R0 SDDM_R1 SDDQS_R1 SDM_R7 SDM_R6 SDM_R5 SDM_R4 SDM_R3 SDM_R2 SDM_R1 SDM_R0
GND_D
R800
RM800 RM801 RM802 RM803 RM804 RM805 RM806 RM807 RM808 RM809 RM810 RM811 RM812 RM813 RM814 RM815 RM816 RM817 RM818 RM819 RM820 RM821 RM822 RM823 RM824 RM825 RM826
[RMX4A]
SDM_R63 SDM_R62 SDM_R61 SDM_R60 SDM_R59 SDM_R58 SDM_R57 SDM_R56 SDDQS_R7 SDDM_R7 SDM_R55 SDM_R54 SDM_R53 SDM_R52 SDM_R51 SDM_R50 SDM_R47 SDM_R46 SDM_R45 SDM_R44 SDM_R43 SDM_R42 SDM_R41 SDM_R40 SDM_R39 SDM_R38 SDM_R37 SDM_R36 SDM_R35 SDM_R34 SDM_R33 SDM_R32 SDM_R31 SDM_R30 SDM_R29 SDM_R28 SDM_R27 SDM_R26 SDM_R25 SDM_R24 SDM_R23 SDM_R22 SDM_R21 SDM_R20 SDM_R19 SDM_R18 SDM_R17 SDM_R16 SDM_R15 SDM_R14 SDM_R13 SDM_R12 SDM_R11 SDM_R10 SDM_R9 SDM_R8
803:5E;804:3B 803:5E;804:3B 803:5E;804:3B 803:5E;804:3B 803:5E;804:3B 803:5D;804:3B 803:5D;804:3B 803:5D;804:3B 803:5D;804:3B 803:1E;804:8A 803:1D;804:8B 803:5D;804:3B 803:5D;804:3C 803:5D;804:3C 803:5D;804:3C 803:5D;804:3C 803:5C;804:3C 803:8E;804:3C 803:8E;804:3C 803:8E;804:3C 803:8E;804:3C 803:8E;804:3D 803:8D;804:3D 803:8D;804:3D 803:8D;804:3D 803:8D;804:3D 803:8D;804:3D 803:8C;804:3E 803:8C;804:3E 803:8C;804:3E 803:8C;804:3E 802:5E;804:3E 802:5E;804:3E 802:5E;804:3E 802:5E;804:3E 802:5E;804:3E 802:5D;804:3E 802:5D;804:3E 802:5D;804:3E 802:5D;804:3F 802:5D;804:5B 802:5D;804:5B 802:5D;804:5B 802:5D;804:5B 802:5D;804:5B 802:5C;804:5B 802:5C;804:5B 802:5C;804:5B 802:8E;804:5C 802:8E;804:5C 802:8E;804:5C 802:8E;804:5C 802:8E;804:5C 802:8D;804:5C 802:8D;804:5C 802:8D;804:5C
A
B
C
D
E
F
1
2
3
4
5
6
7
8
46HM94/52HM94/62HM94
SEINE_PJTV (DDR_SDRAM_I/F)
SH.NO.
801

EDD2516AKTA-6B-E

TSOP II
[MDSD16M16]
IC802

801:8B;803:1A 804:5E	SDA_R0	29	A0
801:8B;803:1A 804:5E	SDA_R1	30	A1
801:8B;803:1A 804:5E	SDA_R2	31	A2
801:8B;803:1A 804:5F	SDA_R3	32	A3
801:8B;803:1B 804:5E	SDA_R4	35	A4
801:8A;803:1B 804:5E	SDA_R5	36	A5
801:8A;803:1B 804:5E	SDA_R6	37	A6
801:8A;803:1B 804:5E	SDA_R7	38	A7
801:8A;803:1B 804:5D	SDA_R8	39	A8
801:8A;803:1B 804:5D	SDA_R9	40	A9
801:8A;803:1B 804:5E	SDA_R10	28	A10/AP
801:8A;803:1B 804:5E	SDA_R11	41	A11
801:8A;803:1B 804:5D	SDA_R12	42	A12
801:8D;803:1C 804:8C	SDBA_R1	27	BS1
801:8D;803:1C 804:8C	SDBA_R0	26	BS0
801:8E 804:8D	SDBCK_R0	46	CLK
801:8E 804:8D	SDCK_R0	45	CLK
801:8C;803:1C 804:8C	SDCKE_R	44	CKE
801:8D;803:1C 804:8D	SDCS_R0	24	CS
801:8D;803:1C 804:8C	SDRAS_R	23	RAS
801:8D;803:1D 804:8C	SDCAS_R	22	CAS
801:8C;803:1D 804:8C	SDWE_R	21	WE
801:8E 804:8D	SDDM_R0	20	LDM
801:8E 804:8D	SDDM_R1	47	UDM
801:8E 804:8D	SDDQS_R0	16	LDQS
801:8E 804:8D	SDDQS_R1	51	UDQS
801:8D 804:8D	SDDM_R2		
801:8D 804:8C	SDDM_R3		
801:8D 804:8D	SDDQS_R2		
801:8D 804:8C	SDDQS_R3		

SDDM_R2 R801 33(J)
SDDM_R3 R802 33(J)
SDDQS_R2 R803 33(J)
SDDQS_R3 R804 33(J)

NC: 14, 17, 19, 25, 43, 50, 53

[VDDQ]: 3, 9, 15, 55, 61
[VSSQ]: 6, 12, 52, 58, 64
[VDD]: 1, 18, 33
[VSS]: 34, 48, 66
[VREF]: 49

DQ0	SDM_R16	[RMX4A] RM827	801:1E 804:5B
DQ1	SDM_R17		801:1E 804:5B
DQ2	SDM_R18		801:1E 804:5B
DQ3	SDM_R19		801:1E 804:5B
DQ4	SDM_R20	[RMX4A] RM828	801:1E 804:5B
DQ5	SDM_R21		801:1E 804:5B
DQ6	SDM_R22		801:1E 804:5B
DQ7	SDM_R23		801:1E 804:5B
DQ8	SDM_R24	[RMX4A] RM829	801:1D 804:3F
DQ9	SDM_R25		801:1D 804:3E
DQ10	SDM_R26		801:1D 804:3E
DQ11	SDM_R27		801:1D 804:3E
DQ12	SDM_R28	[RMX4A] RM830	801:1D 804:3E
DQ13	SDM_R29		801:1D 804:3E
DQ14	SDM_R30		801:1D 804:3E
DQ15	SDM_R31		801:1D 804:3E

All RM827–RM830 resistors: 33(J)

+2.5_DDR
C876 10nF(K) NOT MOUNT
GND_D
DDR_VREF
802:5F;803:1F;803:5F;805:8A

EDD2516AKTA-6B-E

TSOP II
[MDSD16M16]
IC801

SDA_R0	29	A0	
SDA_R1	30	A1	
SDA_R2	31	A2	
SDA_R3	32	A3	
SDA_R4	35	A4	
SDA_R5	36	A5	
SDA_R6	37	A6	
SDA_R7	38	A7	
SDA_R8	39	A8	
SDA_R9	40	A9	
SDA_R10	28	A10/AP	
SDA_R11	41	A11	
SDA_R12	42	A12	
SDBA_R1	27	BS1	
SDBA_R0	26	BS0	
SDBCK_R0	46	CLK	
SDCK_R0	45	CLK	
SDCKE_R	44	CKE	
SDCS_R0	24	CS	
SDRAS_R	23	RAS	
SDCAS_R	22	CAS	
SDWE_R	21	WE	
SDDM_R0	20	LDM	
SDDM_R1	47	UDM	
SDDQS_R0	16	LDQS	
SDDQS_R1	51	UDQS	

SDDM_R0 R805 33(J)
SDDM_R1 R806 33(J)
SDDQS_R0 R807 33(J)
SDDQS_R1 R808 33(J)

NC: 14, 17, 19, 25, 43, 50, 53

[VDDQ]: 3, 9, 15, 55, 61
[VSSQ]: 6, 12, 52, 58, 64
[VDD]: 1, 18, 33
[VSS]: 34, 48, 66
[VREF]: 49

DQ0	SDM_R0	[RMX4A] RM831	801:8F 804:5D
DQ1	SDM_R1		801:8F 804:5D
DQ2	SDM_R2		801:8F 804:5D
DQ3	SDM_R3		801:8F 804:5D
DQ4	SDM_R4	[RMX4A] RM832	801:8F 804:5C
DQ5	SDM_R5		801:8F 804:5C
DQ6	SDM_R6		801:8E 804:5C
DQ7	SDM_R7		801:8E 804:5C
DQ8	SDM_R8	[RMX4A] RM833	801:1F 804:5C
DQ9	SDM_R9		801:1F 804:5C
DQ10	SDM_R10		801:1F 804:5C
DQ11	SDM_R11		801:1F 804:5C
DQ12	SDM_R12	[RMX4A] RM834	801:1F 804:5B
DQ13	SDM_R13		801:1F 804:5C
DQ14	SDM_R14		801:1E 804:5C
DQ15	SDM_R15		801:1E 804:5C

All RM831–RM834 resistors: 33(J)

+2.5_DDR
C877 10nF(K) NOT MOUNT
GND_D
DDR_VREF
802:1F;803:1F;803:5F;805:8A

46HM94/52HM94/62HM94 SH.NO.
SEINE_PJTV (DDR_SDRAM_1) 802

EDD2516AKTA-6B-E

TSOP II
[MDSD16M16]
IC804

EDD2516AKTA-6B-E

TSOP II
[MDSD16M16]
IC803

	IC804	IC803
SDA_R0	A0	A0
SDA_R1	A1	A1
SDA_R2	A2	A2
SDA_R3	A3	A3
SDA_R4	A4	A4
SDA_R5	A5	A5
SDA_R6	A6	A6
SDA_R7	A7	A7
SDA_R8	A8	A8
SDA_R9	A9	A9
SDA_R10	A10/AP	A10/AP
SDA_R11	A11	A11
SDA_R12	A12	A12
SDBA_R1	BS1	BS1
SDBA_R0	BS0	BS0
SDBCK_R1	CLK	CLK
SDCK_R1	CLK	CLK
SDCKE_R	CKE	CKE
SDCS_R0	CS	CS
SDRAS_R	RAS	RAS
SDCAS_R	CAS	CAS
SDWE_R	WE	WE
SDDM_R6 R809 33(J)	LDM	LDM
SDDM_R7 R810 33(J)	UDM	UDM
SDDQS_R6 R811 33(J)	LDQS	LDQS
SDDQS_R7 R812 33(J)	UDQS	UDQS
	NC	NC
	NC	NC
	NC	NC
	NC	NC
	NC	NC
	NC	NC
	NC	NC
	[VDDQ]	[VDDQ]
	[VDDQ]	[VDDQ]
	[VDDQ]	[VDDQ]
	[VDDQ]	[VDDQ]
	[VDDQ]	[VDDQ]
	[VDD]	[VDD]
	[VDD]	[VDD]
	[VDD]	[VDD]
	[VREF]	[VREF]
	[VSSQ]	[VSSQ]
	[VSSQ]	[VSSQ]
	[VSSQ]	[VSSQ]
	[VSSQ]	[VSSQ]
	[VSSQ]	[VSSQ]
	[VSS]	[VSS]
	[VSS]	[VSS]
	[VSS]	[VSS]

	RM835	RM836	RM837	RM838	RM839	RM840	RM841	RM842
DQ0	SDM_R48	SDM_R52	SDM_R56	SDM_R60	SDM_R32	SDM_R36	SDM_R40	SDM_R44
DQ1	SDM_R49	SDM_R53	SDM_R57	SDM_R61	SDM_R33	SDM_R37	SDM_R41	SDM_R45
DQ2	SDM_R50	SDM_R54	SDM_R58	SDM_R62	SDM_R34	SDM_R38	SDM_R42	SDM_R46
DQ3	SDM_R51	SDM_R55	SDM_R59	SDM_R63	SDM_R35	SDM_R39	SDM_R43	SDM_R47
	33(J)	33(J)	33(J)	33(J)	33(J)	33(J)	33(J)	33(J)

+2.5_DDR

C878 10nF(K) NOT MOUNT

GND_D

DDR_VREF

802:1F;802:5F;803:5F;805:8A

C879 10nF(K) NOT MOUNT

GND_D

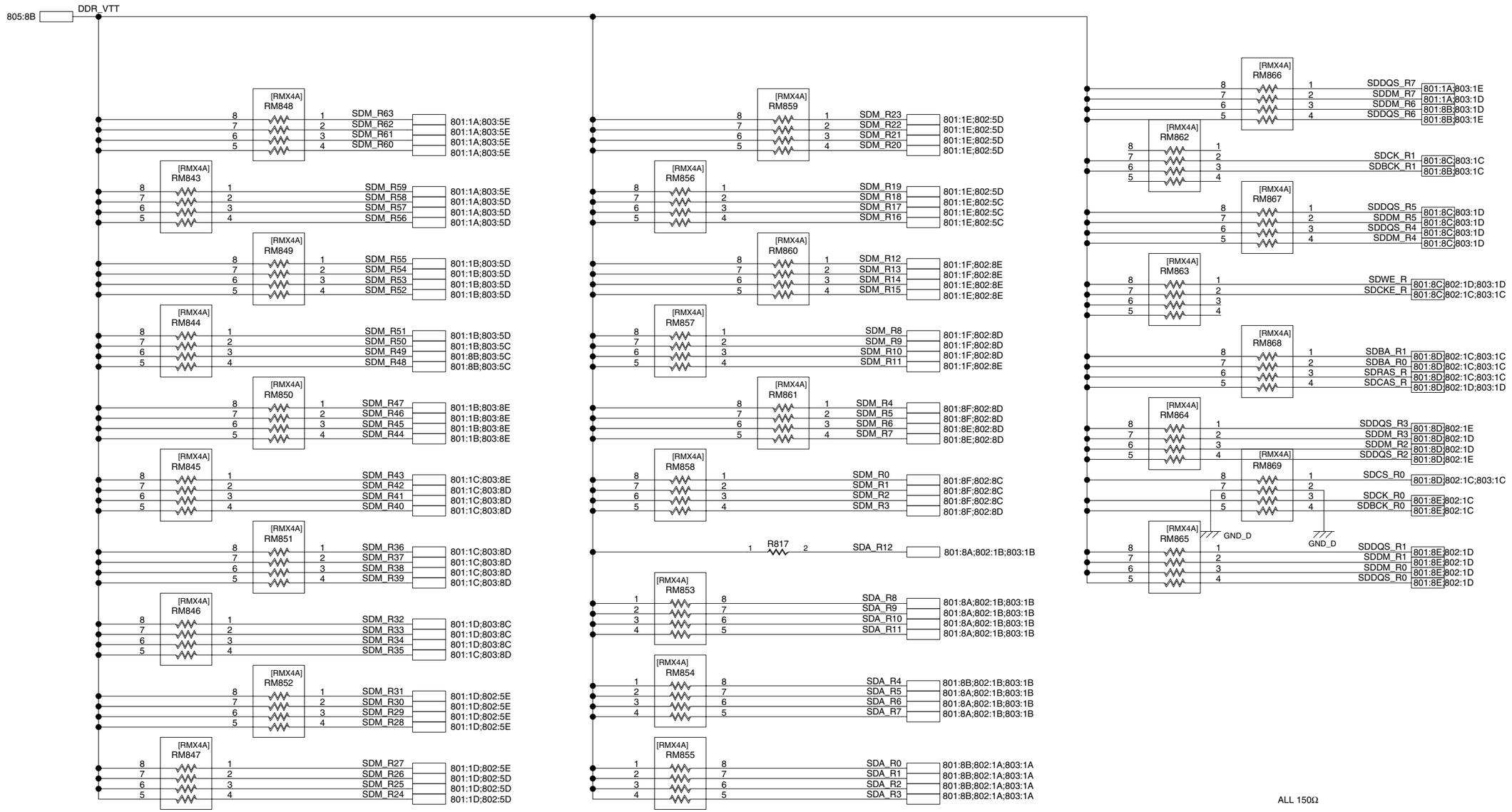
DDR_VREF

802:1F;802:5F;803:1F;805:8A

PAGE NO.

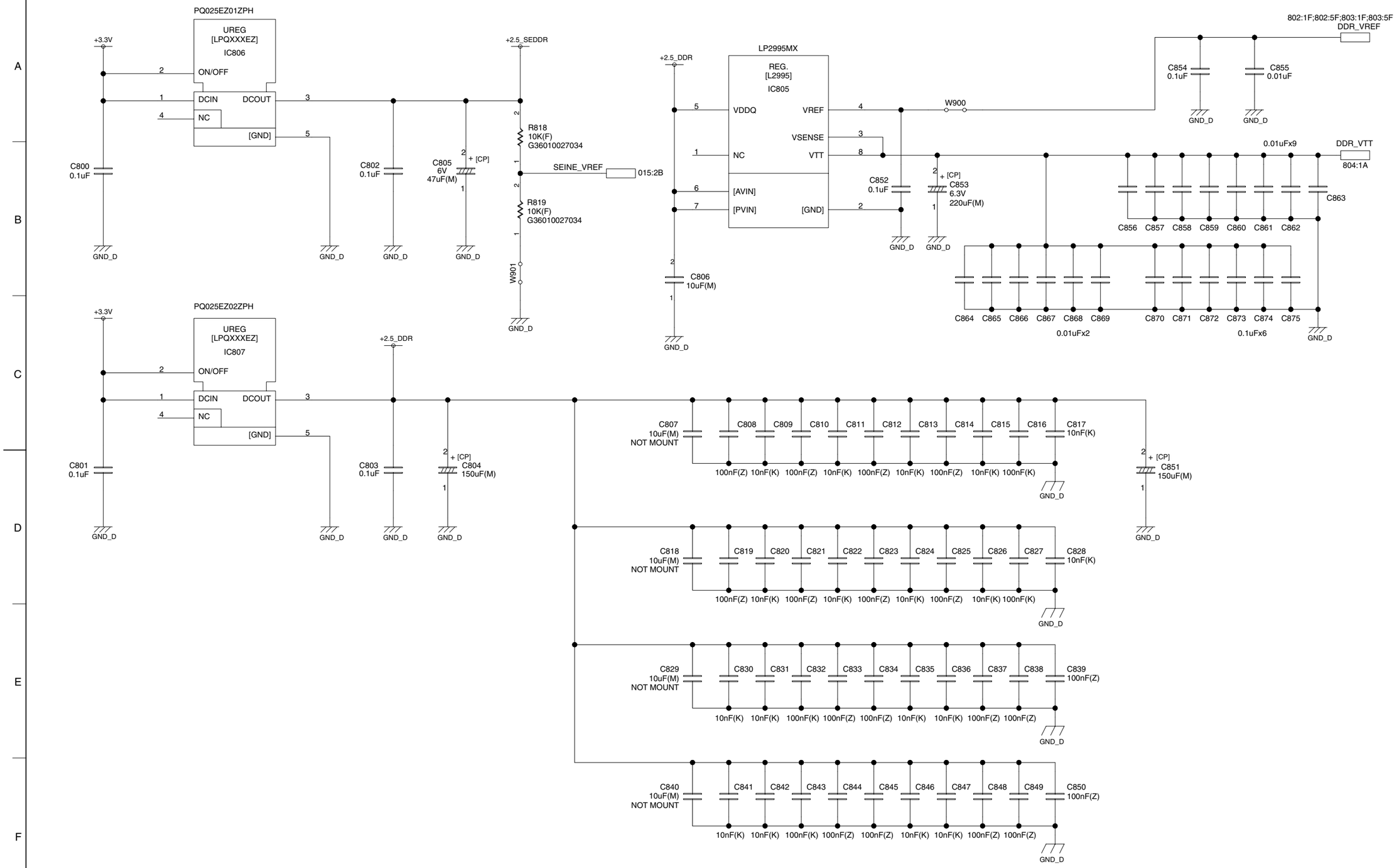
46HM94/52HM94/62HM94
SEINE_PJTV (DDR_SDRAM_2)

SH.NO. 803



46HM94/52HM94/62HM94
SEINE_PJTV (DDR_SDRAM_TERMINATOR)

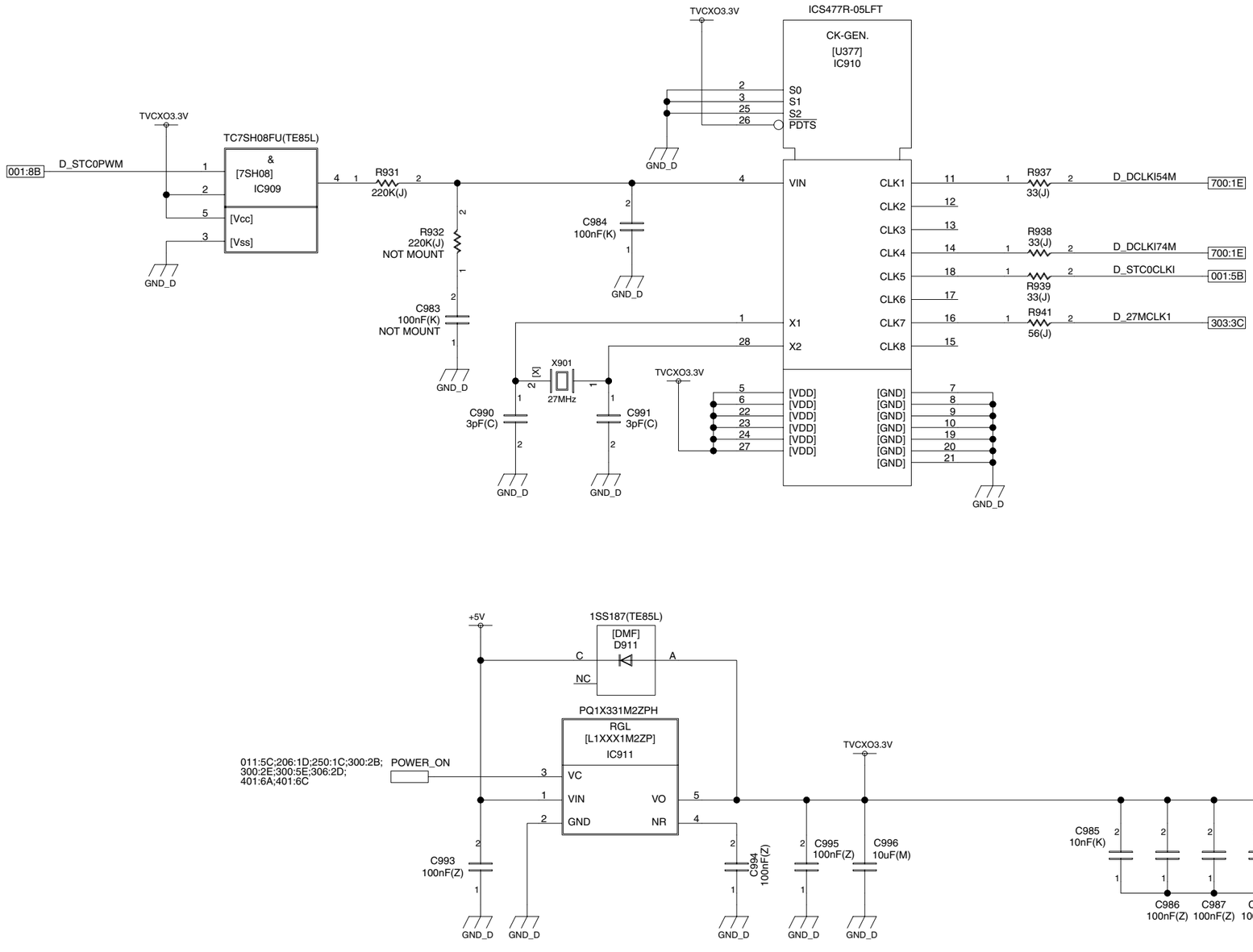
SH.NO.
804



46HM94/52HM94/62HM94

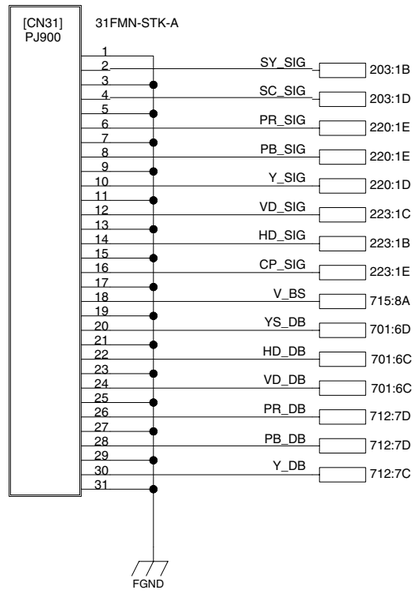
SEINE_PJTV (DDR_SDRAM_DDR_POWER/VREF/VTT)

SH.NO. 805

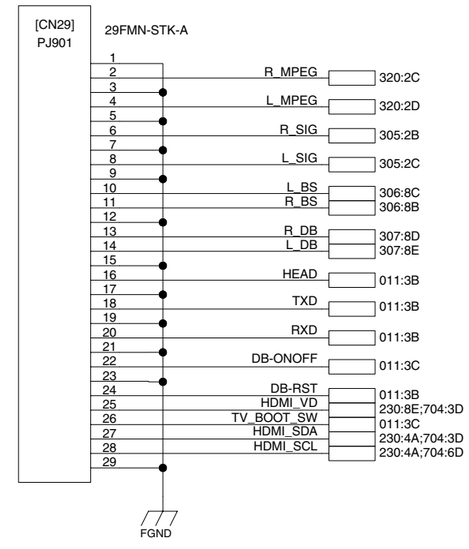


46HM94/52HM94/62HM94 SH.NO.
SEINE_PJTV (VCXO) 950

GDM220000834

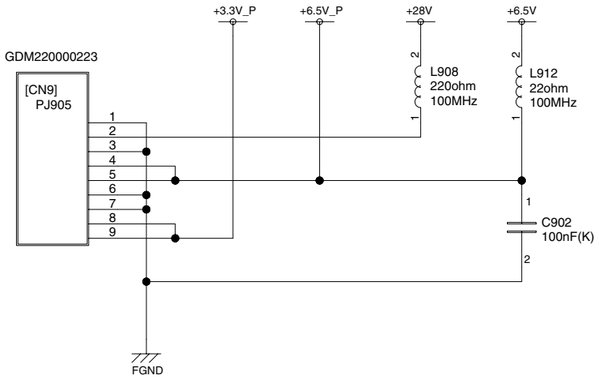


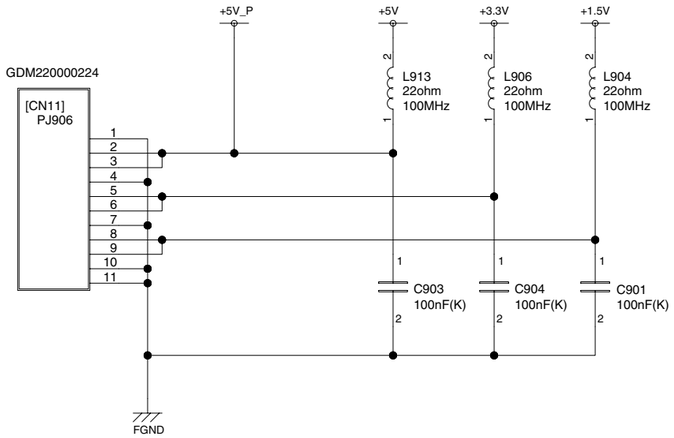
GDM220000833

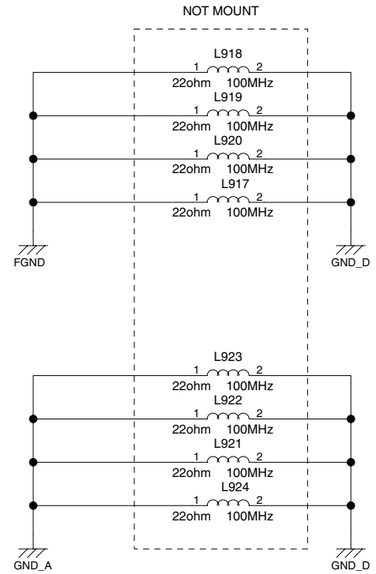


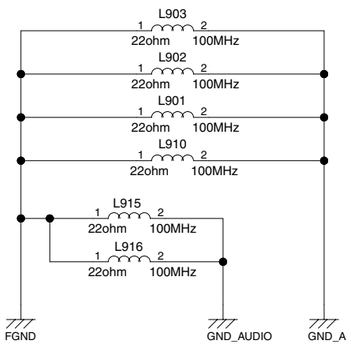
46HM94/52HM94/62HM94
SEINE_PJTV (TERMINAL-SIGNAL_CONNECTOR)

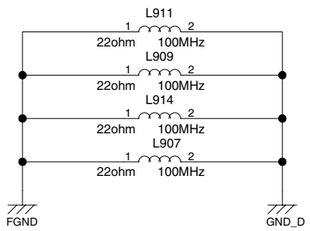
SH.NO.
960

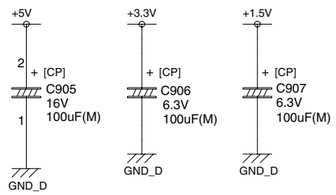




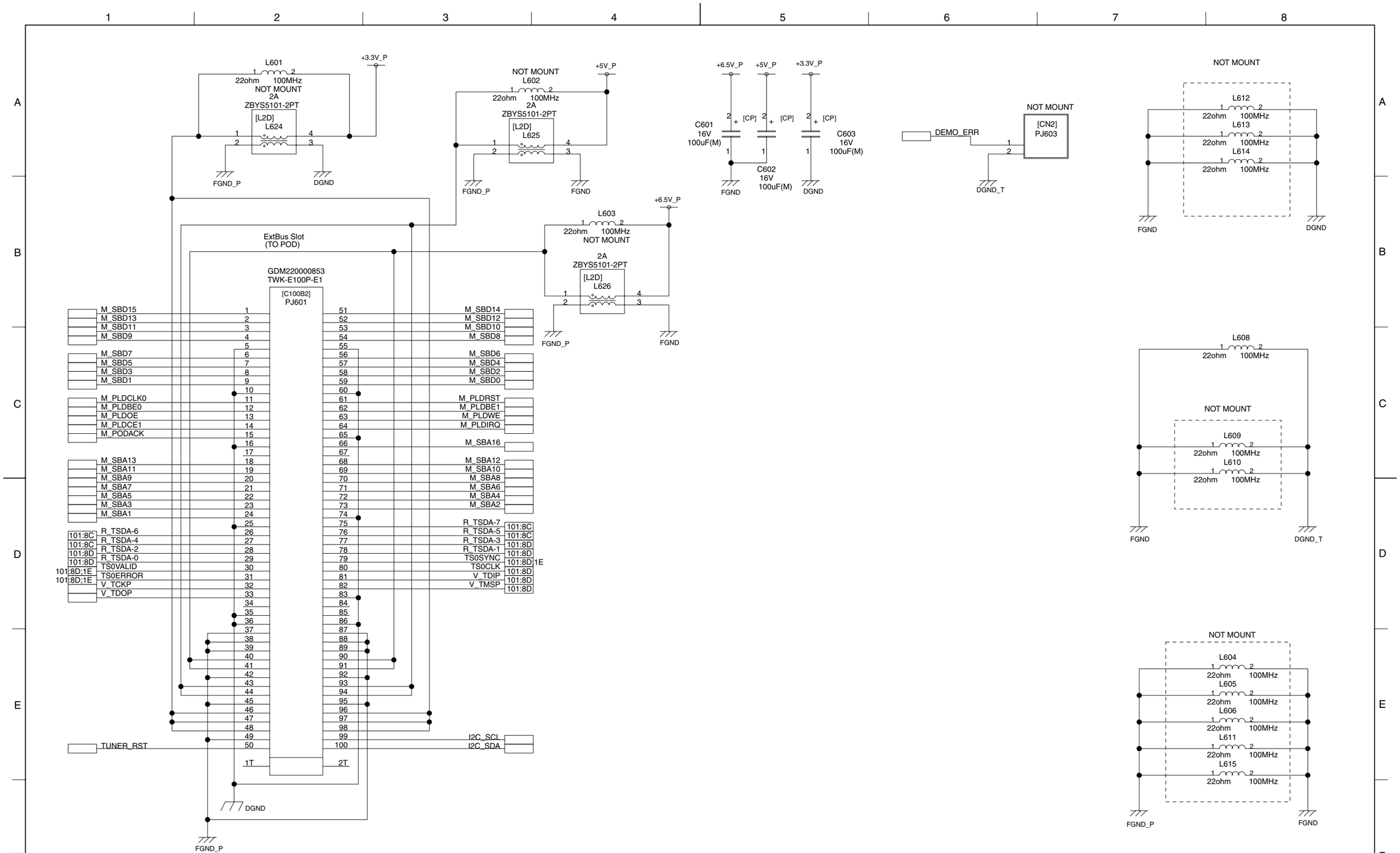




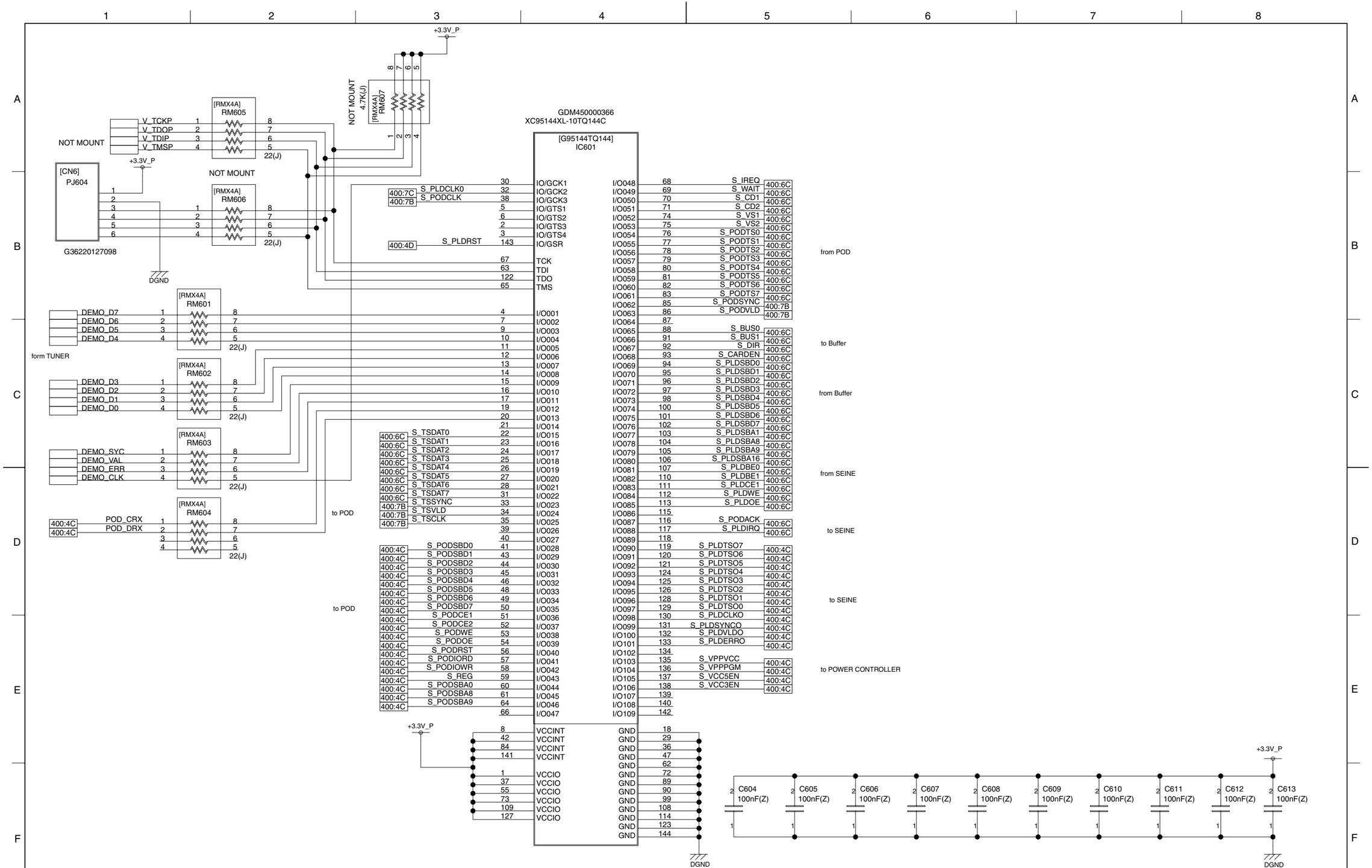




46HM94/52HM94/62HM94 SH.NO.
SEINE_PJTV (TERMINAL-POWER_CONNECTOR) 961

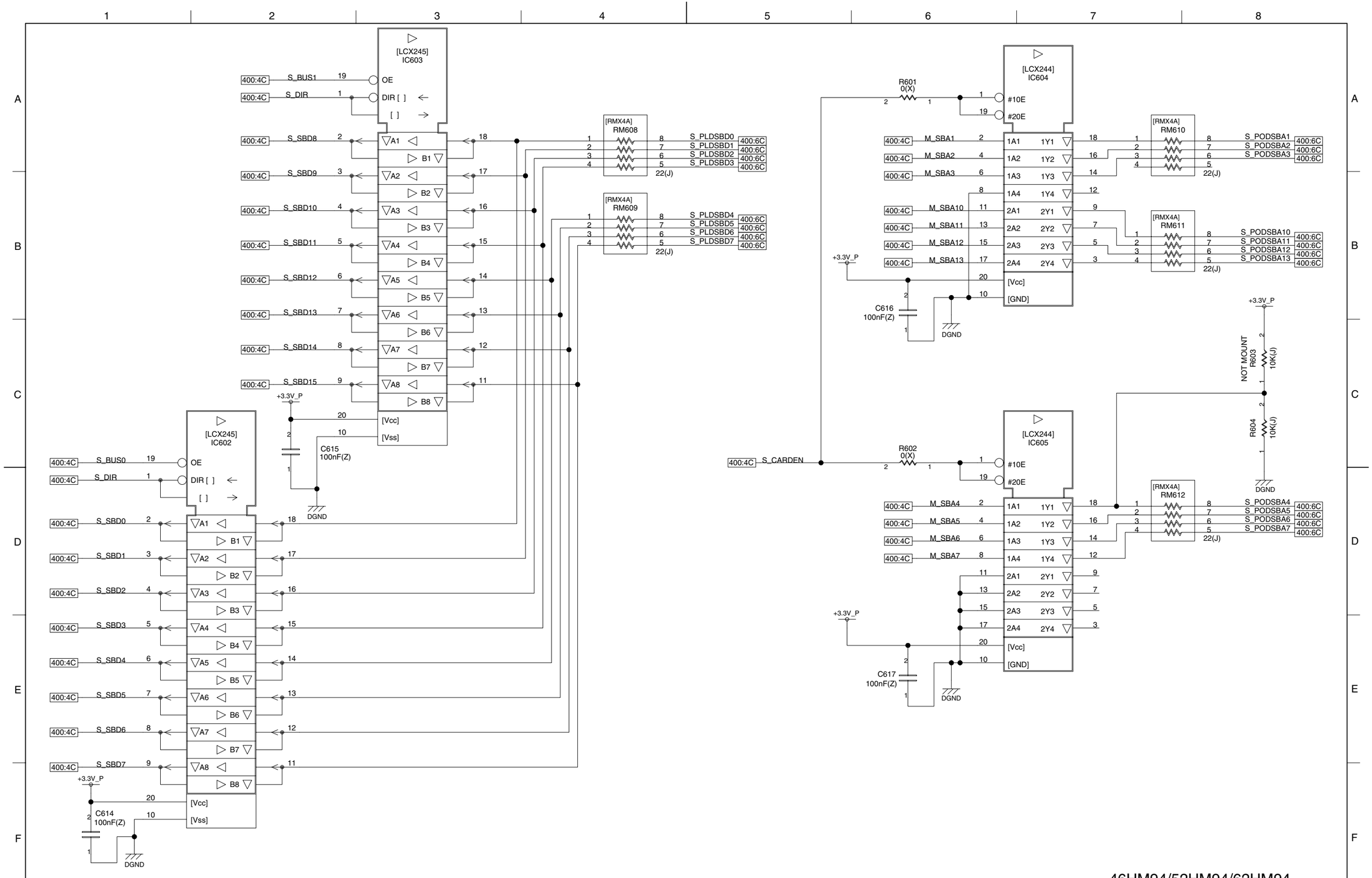


46HM94/52HM94/62HM94 SH.NO.
POD (POD_CONNECTOR) 1



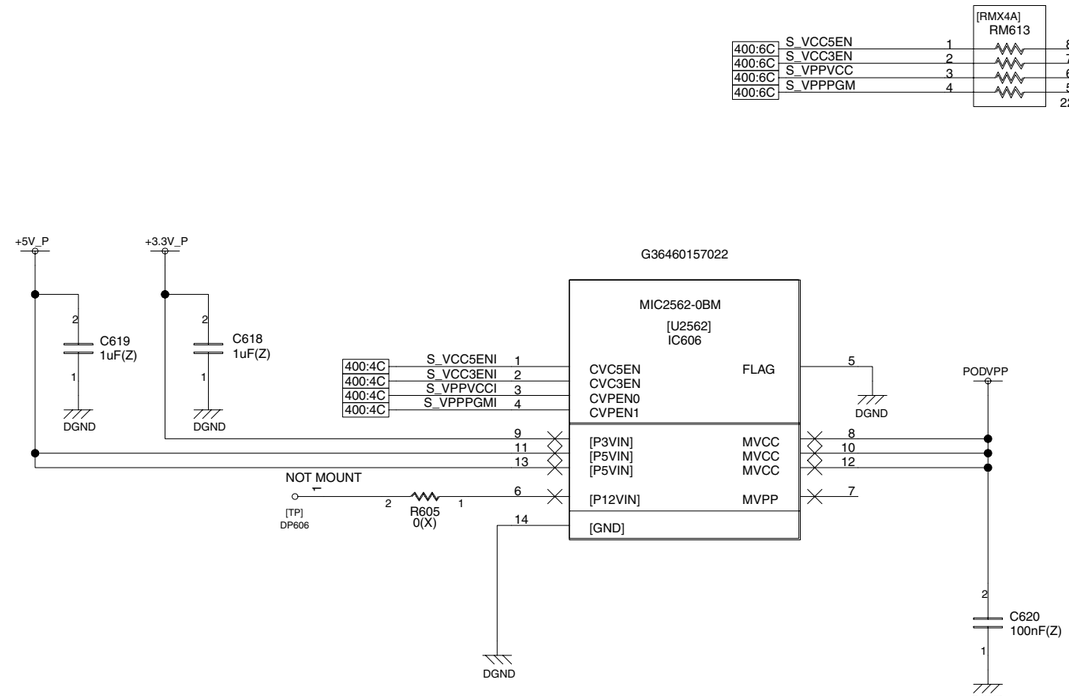
46HM94/52HM94/62HM94
POD (POD_IF-CPLD_XILINK)

SH.NO. 003

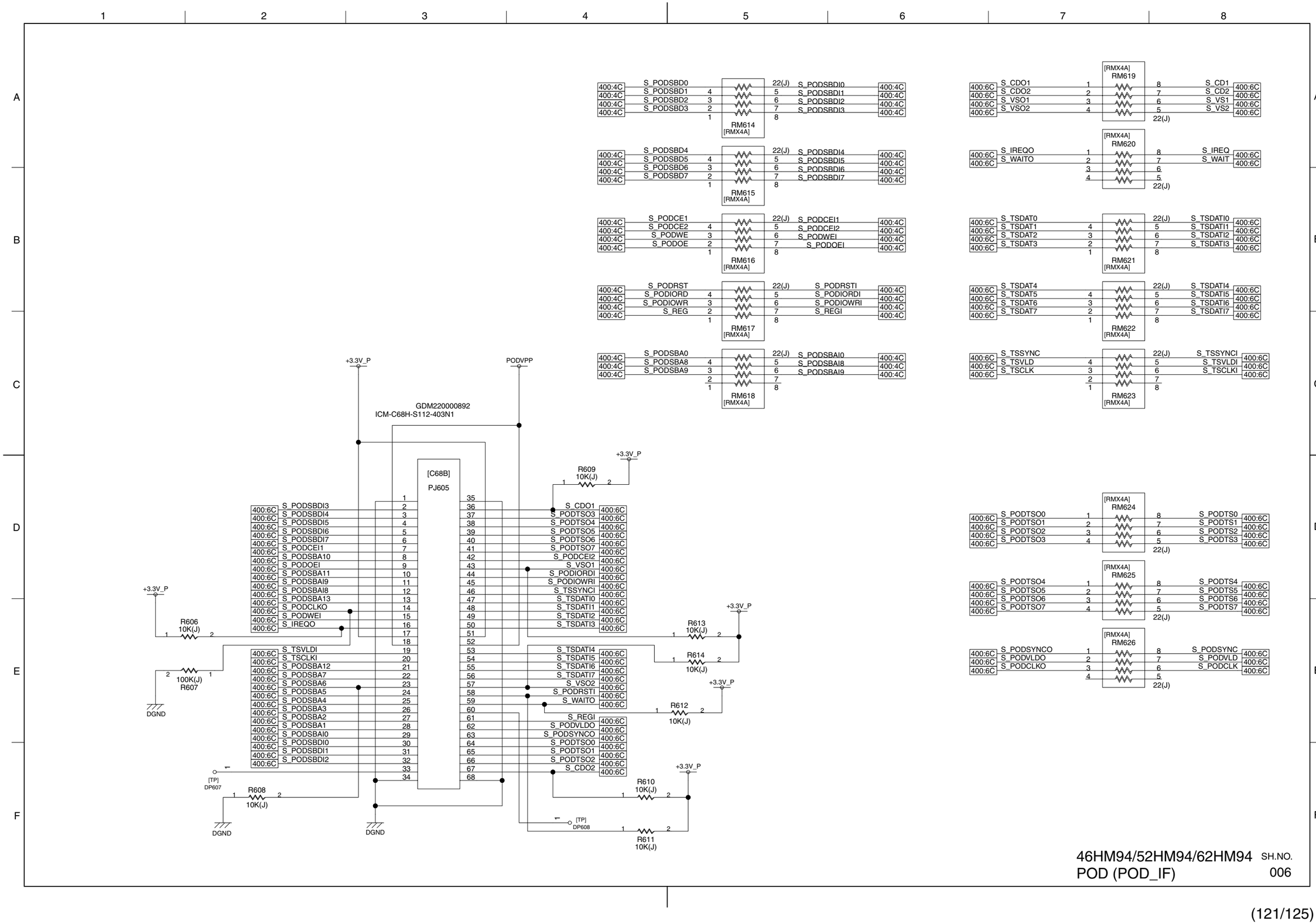


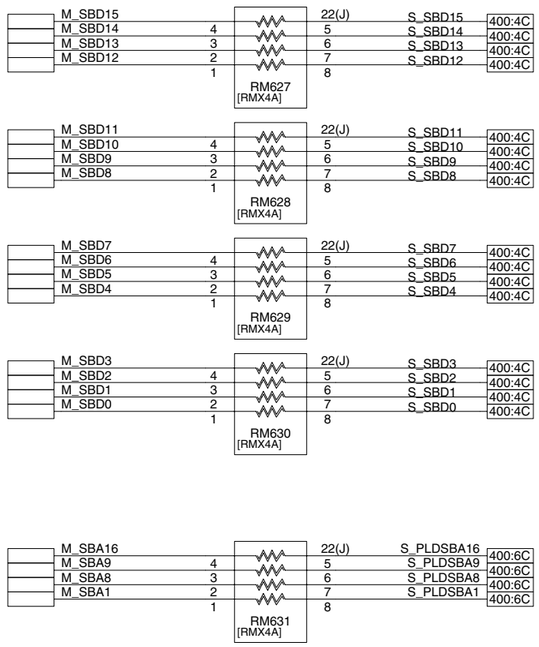
46HM94/52HM94/62HM94
POD (POD_IF-SLOWBUS)

SH.NO.
004

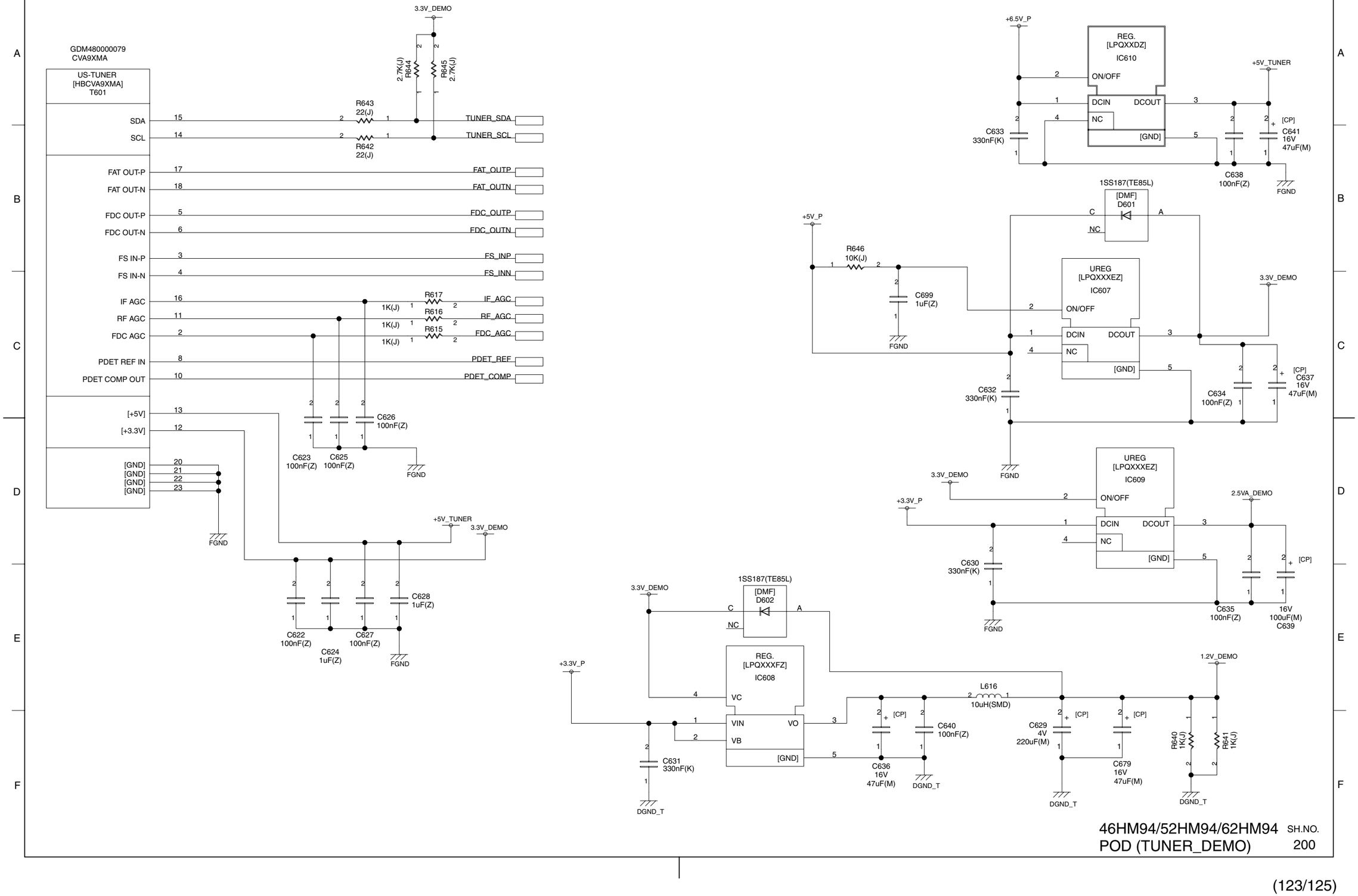


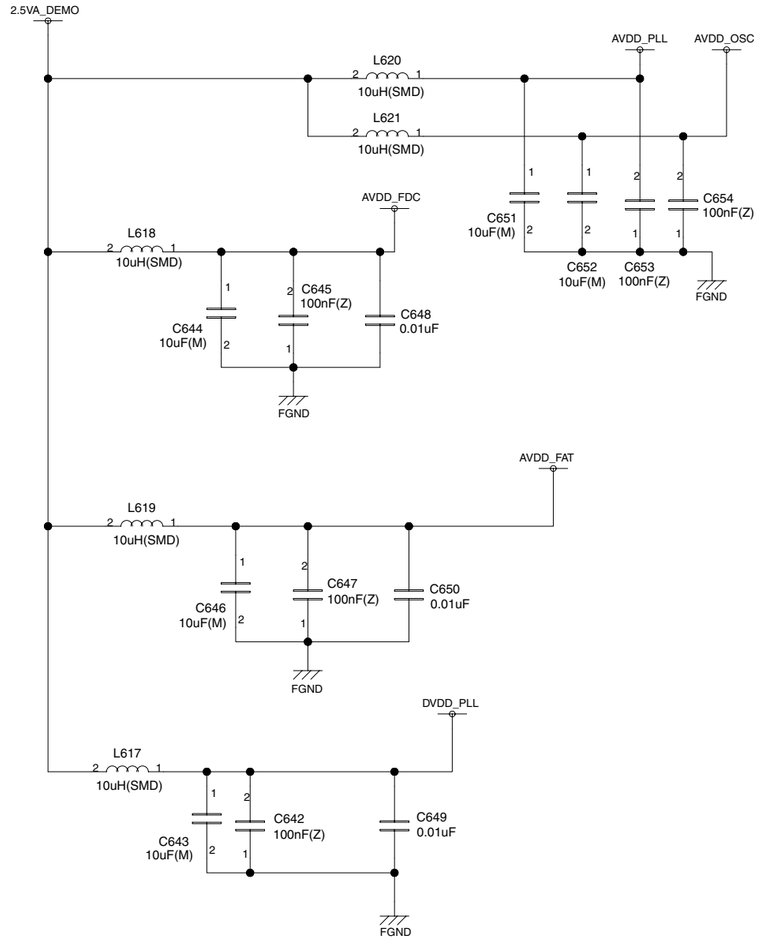
46HM94/52HM94/62HM94 SH.NO.
POD (POD_IF-POWER) 005

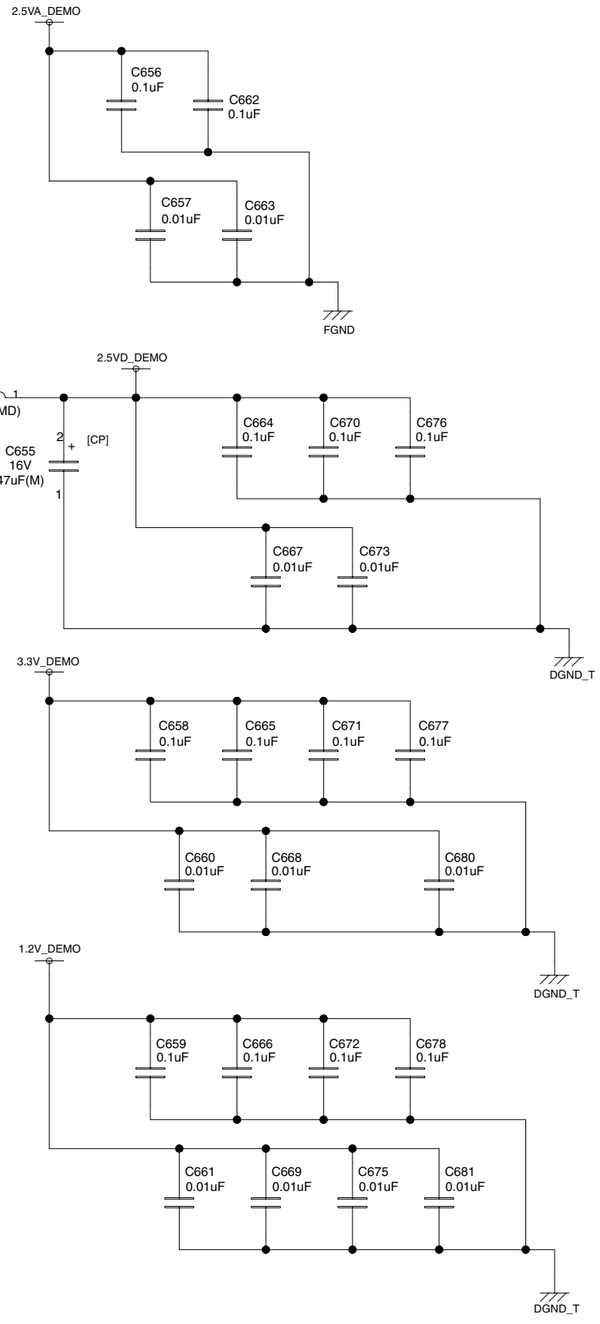

RM614 [RMX4A]
S_PODSBDI0
S_PODSBDI1
S_PODSBDI2
S_PODSBDI3
S_PODSBD0
S_PODSBD1
S_PODSBD2
S_PODSBD3
RM615 [RMX4A]
S_PODSBDI4
S_PODSBDI5
S_PODSBDI6
S_PODSBDI7
S_PODSBD4
S_PODSBD5
S_PODSBD6
S_PODSBD7
RM616 [RMX4A]
S_PODCEI1
S_PODWEI
S_PODOEI
S_PODCE1
S_PODCE2
S_PODWE
S_PODOE
RM617 [RMX4A]
S_PODRSTI
S_PODIORDI
S_PODIOWRI
S_REGI
S_PODRST
S_PODIORD
S_PODIOWR
S_REG
RM618 [RMX4A]
S_PODSBAI0
S_PODSBAI8
S_PODSBAI9
S_PODSBA0
S_PODSBA8
S_PODSBA9
RM619 [RMX4A]
S_CD1
S_CD2
S_VS1
S_VS2
S_CDO1
S_CDO2
S_VSO1
S_VSO2
RM620 [RMX4A]
S_IREQ
S_WAIT
S_IREQO
S_WAITO
RM621 [RMX4A]
S_TSDATI0
S_TSDATI1
S_TSDATI2
S_TSDATI3
S_TSDAT0
S_TSDAT1
S_TSDAT2
S_TSDAT3
RM622 [RMX4A]
S_TSDATI4
S_TSDATI5
S_TSDATI6
S_TSDATI7
S_TSDAT4
S_TSDAT5
S_TSDAT6
S_TSDAT7
RM623 [RMX4A]
S_TSSYNCI
S_TSVLDI
S_TSCLKI
S_TSSYNC
S_TSVLD
S_TSCLK
RM624 [RMX4A]
S_PODTS0
S_PODTS1
S_PODTS2
S_PODTS3
S_PODTSO0
S_PODTSO1
S_PODTSO2
S_PODTSO3
RM625 [RMX4A]
S_PODTS4
S_PODTS5
S_PODTS6
S_PODTS7
S_PODTSO4
S_PODTSO5
S_PODTSO6
S_PODTSO7
RM626 [RMX4A]
S_PODSYNC
S_PODVLD
S_PODCLK
S_PODSYNCO
S_PODVLDO
S_PODCLKO
22(J)
400:4C
400:6C
+3.3V_P
PODVPP
GDM220000892
ICM-C68H-S112-403N1
[C68B]
PJ605
R609 10K(J)
R613 10K(J)
R614 10K(J)
R612 10K(J)
R610 10K(J)
R611 10K(J)
R606 10K(J)
R607 100K(J)
R608 10K(J)
DGND
[TP] DP607
[TP] DP608
S_PODSBDI3
S_PODSBDI4
S_PODSBDI5
S_PODSBDI6
S_PODSBDI7
S_PODCEI1
S_PODSBA10
S_PODOEI
S_PODSBA11
S_PODSBAI9
S_PODSBAI8
S_PODSBA13
S_PODCLKO
S_PODWEI
S_IREQO
S_TSVLDI
S_TSCLKI
S_PODSBA12
S_PODSBA7
S_PODSBA6
S_PODSBA5
S_PODSBA4
S_PODSBA3
S_PODSBA2
S_PODSBA1
S_PODSBAI0
S_PODSBDI0
S_PODSBDI1
S_PODSBDI2
S_CDO1
S_PODTSO3
S_PODTSO4
S_PODTSO5
S_PODTSO6
S_PODTSO7
S_PODCEI2
S_VSO1
S_PODIORDI
S_PODIOWRI
S_TSSYNCI
S_TSDATI0
S_TSDATI1
S_TSDATI2
S_TSDATI3
S_TSDATI4
S_TSDATI5
S_TSDATI6
S_TSDATI7
S_VSO2
S_PODRSTI
S_WAITO
S_REGI
S_PODVLDO
S_PODSYNCO
S_PODTSO0
S_PODTSO1
S_PODTSO2
S_CDO2
46HM94/52HM94/62HM94
POD (POD_IF)
SH.NO.
006

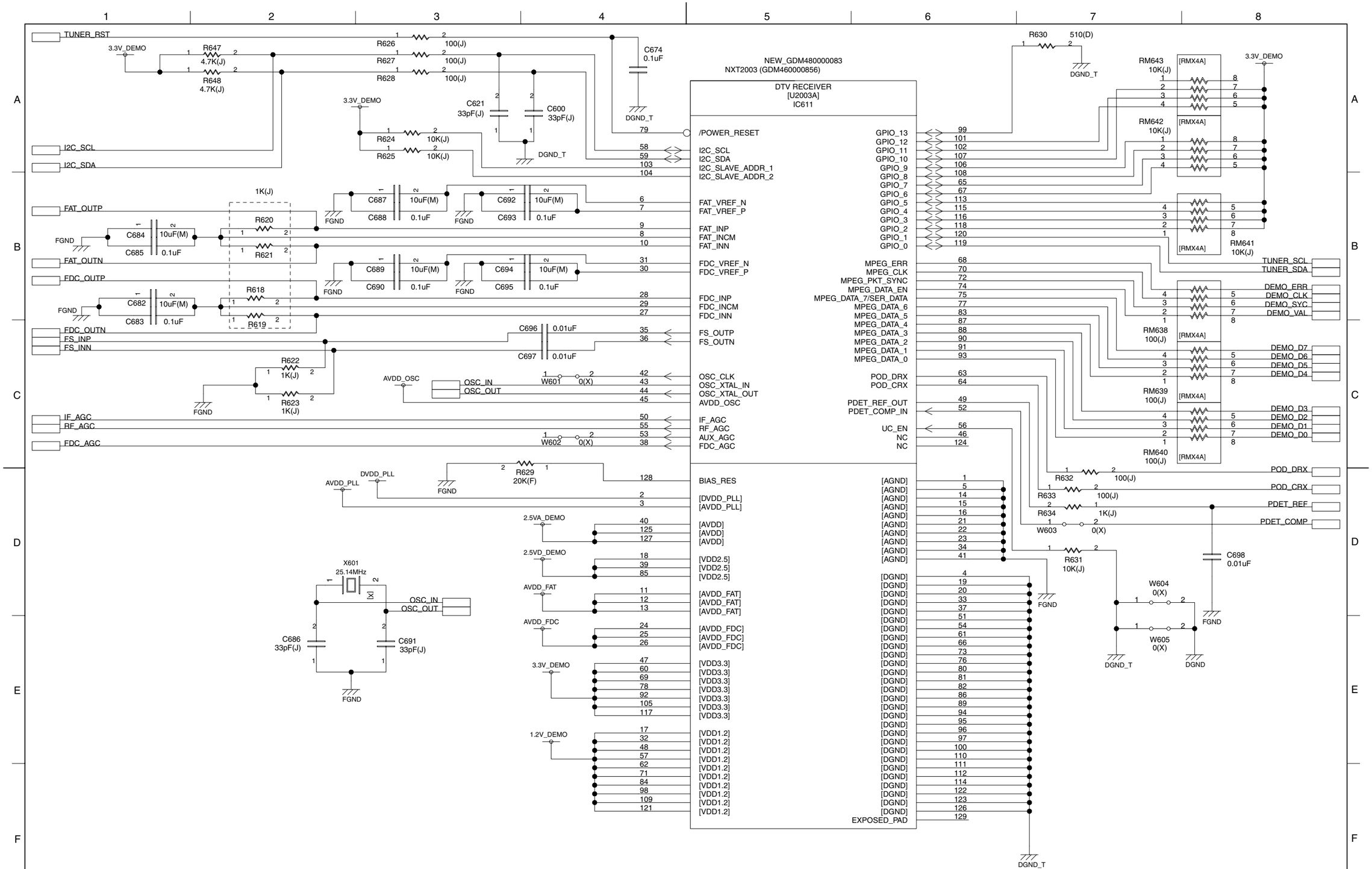


46HM94/52HM94/62HM94 SH.NO.
POD (DB_POD_IF) 008


GDM480000079
CVA9XMA
US-TUNER
[HBCVA9XMA]
T601
SDA
SCL
FAT OUT-P
FAT OUT-N
FDC OUT-P
FDC OUT-N
FS IN-P
FS IN-N
IF AGC
RF AGC
FDC AGC
PDET REF IN
PDET COMP OUT
[+5V]
[+3.3V]
[GND]
[GND]
[GND]
[GND]
TUNER_SDA
TUNER_SCL
FAT_OUTP
FAT_OUTN
FDC_OUTP
FDC_OUTN
FS_INP
FS_INN
IF_AGC
RF_AGC
FDC_AGC
PDET_REF
PDET_COMP
3.3V_DEMO
R643 22(J)
R642 22(J)
2.7K(J) R644
R645 2.7K(J)
R617 1K(J)
R616 1K(J)
R615 1K(J)
C626 100nF(Z)
C623 100nF(Z)
C625 100nF(Z)
FGND
+5V_TUNER
3.3V_DEMO
C628 1uF(Z)
C622 100nF(Z)
C627 100nF(Z)
C624 1uF(Z)
FGND
+6.5V_P
REG. [LPQXXDZ] IC610
ON/OFF
DCIN
DCOUT
NC
[GND]
C633 330nF(K)
+5V_TUNER
[CP] C641 16V 47uF(M)
C638 100nF(Z)
FGND
1SS187(TE85L) [DMF] D601
C
A
NC
+5V_P
R646 10K(J)
C699 1uF(Z)
FGND
UREG [LPQXXXEZ] IC607
ON/OFF
DCIN
DCOUT
NC
[GND]
3.3V_DEMO
C632 330nF(K)
C634 100nF(Z)
[CP] C637 16V 47uF(M)
FGND
UREG [LPQXXXEZ] IC609
3.3V_DEMO
+3.3V_P
ON/OFF
DCIN
DCOUT
NC
[GND]
2.5VA_DEMO
C630 330nF(K)
C635 100nF(Z)
[CP] 16V 100uF(M) C639
FGND
1SS187(TE85L) [DMF] D602
3.3V_DEMO
C
A
NC
REG. [LPQXXXFZ] IC608
+3.3V_P
VC
VIN
VO
VB
[GND]
L616 10uH(SMD)
1.2V_DEMO
C631 330nF(K)
C636 16V 47uF(M)
C640 100nF(Z)
C629 4V 220uF(M)
C679 16V 47uF(M)
R640 1K(J)
R641 1K(J)
DGND_T
DGND_T
DGND_T
DGND_T
46HM94/52HM94/62HM94
POD (TUNER_DEMO)
SH.NO.
200

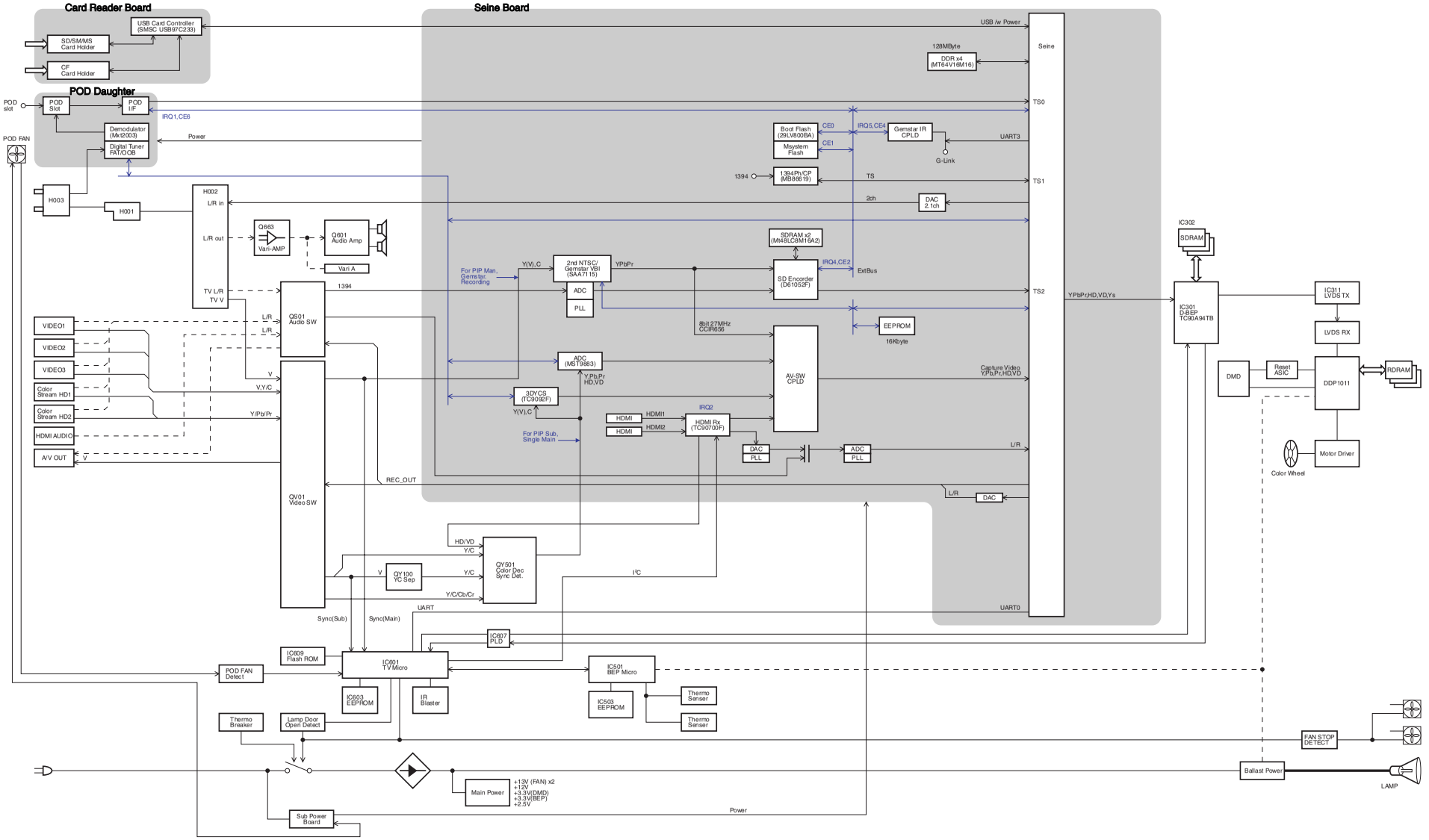

2.5VA_DEMO
L620
10uH(SMD)
L621
10uH(SMD)
AVDD_PLL
AVDD_OSC
C651
10uF(M)
C652
10uF(M)
C653
100nF(Z)
C654
100nF(Z)
FGND
AVDD_FDC
L618
10uH(SMD)
C644
10uF(M)
C645
100nF(Z)
C648
0.01uF
FGND
AVDD_FAT
L619
10uH(SMD)
C646
10uF(M)
C647
100nF(Z)
C650
0.01uF
FGND
DVDD_PLL
L617
10uH(SMD)
C643
10uF(M)
C642
100nF(Z)
C649
0.01uF
FGND


2.5VA_DEMO
C656
0.1uF
C662
0.1uF
C657
0.01uF
C663
0.01uF
FGND
2.5VA_DEMO
2.5VD_DEMO
L622
10uH(SMD)
C655
16V
47uF(M)
[CP]
C664
0.1uF
C670
0.1uF
C676
0.1uF
C667
0.01uF
C673
0.01uF
DGND_T
3.3V_DEMO
C658
0.1uF
C665
0.1uF
C671
0.1uF
C677
0.1uF
C660
0.01uF
C668
0.01uF
C680
0.01uF
DGND_T
1.2V_DEMO
C659
0.1uF
C666
0.1uF
C672
0.1uF
C678
0.1uF
C661
0.01uF
C669
0.01uF
C675
0.01uF
C681
0.01uF
DGND_T



46HM94/52HM94/62HM94 SH.NO.
POD (TUNER_DEMO-NXT2003) 202

CIRCUIT BLOCK DIAGRAM



TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN